

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II**

DATE: APR 12 2013

SUBJECT: Removal Site Evaluation for the Matlack, Inc. Site, Woolwich Township,
Gloucester County, New Jersey

FROM: Margaret (Alferman) Gregor, On-Scene Coordinator
Removal Action Branch

Margaret Gregor

TO: Joseph D. Rotola, Chief
Removal Action Branch

SITE ID: 02P9; CERCLIS# NJD043584101

I. INTRODUCTION

On August 9, 2011, the United States Environmental Protection Agency (EPA) received a request from the New Jersey Department of Environmental Protection (NJDEP) to evaluate the Matlack Inc. Swedesboro Terminal Site (Site) for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Removal Action consideration and recommend the Site for inclusion on the National Priorities List (NPL). The Site was proposed for NPL inclusion on September 14, 2012. The Site is located on the south side of Route 322 (2160 Route 322 East; Block 6, Lot 5) in a mixed industrial, residential and rural area of Woolwich Township, New Jersey. It is a 70.26-acre parcel currently occupied by Liberty Kenworth, a medium and heavy duty truck sales and service center. Current on-site operations are limited to the northeastern portion of the Site, which is developed with an approximately 20,000-square foot, 14-bay service building and paved parking areas. A building of approximately 2,600 square feet housing a groundwater remediation system operated by NJDEP is located to the south of the service building. The remainder of the property is scrub brush and fields.

The Site is bordered by Route 322 to the north, undeveloped farmland to the east, Raccoon Creek and commercial property occupied by Interstate Aerial and Venezia Transportation to the south, and a portion of the Raccoon Creek Wildlife Management Area to the west. Grand Sprute Run runs northeast to southwest through the Wildlife Management Area adjacent to the west; this is a tributary to Raccoon Creek, which flows into the Delaware River approximately 5.5 miles downstream. There are seven residences and one commercial property located directly to the north of the Site across Route 322. There are 24 potable water wells within a four-mile radius of the Site, including one on-site which supplies the service building. Groundwater in the area generally flows to the west-southwest, although it has been recently reported that groundwater in the Site vicinity flows in a north/northwesterly direction towards Grand Sprute Run. A Site Location Map is included as Attachment A.

From the early to mid 1900s until 1962, the Site was occupied as a sand and gravel quarry on the northern third of the parcel. From 1962 until 2001, Matlack, Inc. (Matlack) occupied the Site as a trucking terminal. On-site operations from 1962 to 1997 included truck maintenance and parking and truck, trailer and tanker washing. Tankers, which had held a variety of substances including oils, xylenes, benzene, toluene, glycol, styrene, wax, alum, resins, acids, naphthalene, various organic solvents, flammable substances, coal tar and hazardous wastes, were purged of residual materials and rinsed with a steam and detergent water solution along with either a mild caustic or acid solution. Approximately five percent of the tankers were cleaned with an organic solvent solution, which reportedly contained tetrachloroethene (PCE), methylene chloride, toluene, trichloroethene (TCE), acetone, methanol and/or ethanol. These operations generated between 10,000 and 15,000 gallons of waste water per working day. From 1962 to 1976, this waste water was discharged to an unlined lagoon (also referred to as surface impoundment or disposal pit) which was a former sand and gravel borrow pit, presumably from the historic quarrying operations on-site. The lagoon was located on-site to the southwest of the terminal building and was approximately 1.8 acres in size and 12 to 15 feet deep, intersecting the water table which varies between approximately six and 20 feet below ground surface (bgs).

In 1976, Matlack, Inc. began transporting the waste water off-site for disposal, following pre-treatment (oil/water separation, pH adjustment and chemical/physical flocculation) and storage in two 18,000-gallon, open-top, in-ground concrete tanks. The waste water lagoon was subsequently pumped and filled with a variety of demolition debris, soil and other fill from an unknown source; sludge was left in place after the lagoon was pumped. Waste materials, including crushed drums, drum liners and lids, oil filters, burnt wood fragments, copper and lead piping, plastic, glass, cardboard, metal scraps, concrete, and black- and brown-streaked sand, were later observed in the 1980s during collection of soil borings from the lagoon. Matlack, Inc. discontinued tanker cleaning operations in November 1997, but continued to service and store vehicles at the Site until 2001 when Matlack, Inc. ceased operations and filed for Chapter 11 bankruptcy. Liberty Kenworth began operating at the Site in February 2008.

Numerous investigative and remedial activities have occurred at the Site under NJDEP direction since 1982. In December 1982, the NJDEP advanced hand auger boreholes within the former lagoon area as part of an investigation in the vicinity of the Site, and chemical odors were noted. In May 1983, the NJDEP collected three soil samples from the former lagoon area, and analysis revealed elevated concentrations of PCE, TCE, toluene and other volatile organic compounds (VOCs). Hydrogeological investigations conducted by Matlack from 1984-1986 under NJDEP direction revealed the presence of buried metallic objects in the former lagoon area, including a buried crushed drum containing 31% TCE, 17% PCE, 1.7% xylenes and 0.7% toluene. A soil sample collected from beneath the drum exhibited TCE at 82,000 parts per million (ppm), PCE at 52,000 ppm, toluene at 1,140 ppm and ethylbenzenes at 253 ppm.

On May 26, 1987, the NJDEP and Matlack, Inc. entered into an Administrative Consent Order (ACO) which required Matlack, Inc. to conduct an interim remedial measure (IRM) at the Site, perform a remedial investigation and post financial assurance in the amount of two million dollars. The remedial investigation, which included installation of on- and off-site groundwater monitoring wells, was completed in 1990 and suggested that the two primary sources of

contamination on-site were two waste oil underground storage tanks (USTs) and an area of a diesel fuel line leak. The buried waste tanks, each 10,000 gallons in capacity, were removed in spring 1992 and the contaminated soils resultant from the diesel fuel line leak were removed between August 1992 and April 1993. Nine additional USTs and associated piping and contaminated soil were removed from areas surrounding the on-site terminal building in September 1999. The tanks ranged in size from approximately 4,000 to 20,000 gallons and contained diesel fuel, new or used motor oil, or heating oil. All excavations were backfilled with clean fill and/or un-impacted excavated soil.

A total of approximately 47 ground water monitoring wells, pumping wells and piezometers have been installed on and around the Matlack property. Numerous ground water investigations since 1984 have revealed that a plume of chlorinated solvents and other volatile and semivolatile organic compounds is migrating westward from the Site and into Grand Sprute Run approximately 600 feet to the west (in some areas over 1,300 feet from the former lagoon), in the adjacent Raccoon Creek Wildlife Management Area. Hydrogeological investigations have indicated that the shallow aquifer beneath the Site (known as the Pensauken Formation) flows north-northwest beneath the former lagoon area and discharges, likely along several troughs in the underlying clay layer, to Grand Sprute Run, which also flows on the top of the clay layer that serves as a boundary for the aquifer. Soil sampling of the former lagoon area in September 2008 revealed concentrations of PCE reaching up to 48 ppm and TCE up to 350 ppm. In May 2000 and September 2008, PCE was detected in two groundwater wells located approximately 220-250 southwest of the former lagoon area at 13,600 ppb and 12,000 parts per billion (ppb); other compounds included TCE at 1,300 ppb, 1,1,1-trichloroethane (1,1,1-TCA) at 8,100 ppb, benzene at 92 ppb and additional VOCs in nearby wells. VOCs have been detected in a monitoring well located more than 1,200 feet west of the former lagoon area, including PCE at 3,040 ppb and TCE at 28 ppb in August 2006. Most recently, in April 2012, EPA completed groundwater sampling at six monitoring wells and one piezometer located on and in the vicinity of the Matlack property. Results indicated PCE levels up to 3,000 ppb and TCE levels reaching 160 ppb between the former lagoon area and Grand Sprute Run. VOCs were not detected in wells upgradient of the former lagoon area.

A groundwater remediation system was installed at the Site in 1994 as Matlack's IRM required by the ACO with the NJDEP, consisting of twelve recovery/monitoring wells located downgradient of the former waste tanks and lagoon area, an infiltration trench located upgradient of the former lagoon area, and an aerator system which removes VOCs prior to re-injection of the groundwater. This system operated intermittently, from November 1995 through May 1997 and from November 2000 through January 2001 when Matlack went bankrupt. The NJDEP evaluated and repaired the system, and reactivated it in 2006. The system is currently treating impacted groundwater on-site and is being maintained by the NJDEP. However, based on groundwater sampling results, it appears that this system is not sufficiently containing the Site-related groundwater VOC plume.

It should be noted that potable well water at the residences and commercial properties adjacent to the Site does not appear to have been impacted by Site contaminants. Potable water sampling events were conducted at the four residences adjacent to the north of the Site in May 2002, January 2003 and August 2008; the 2008 event included an additional residence near the others.

The samples were analyzed for VOCs, semivolatile organic compounds (SVOCs), pesticides (except 2008), polychlorinated biphenyls (PCBs; except in 2008), metals and mercury (2008 only). Several compounds have been present above drinking water standards, including lead at one residence in 2003 (at 169 ppb, above the NJDEP standard of 5 ppb), aluminum, iron and magnesium at several of the residences in 2003, and lead in four of five residences in 2008 (up to 15.2 ppb). Based on the direction of groundwater flow in the area and the nature of the contaminants, it does not appear that the elevated levels of metals are due to Site activities. The potable water well on-site within the Liberty Kenworth terminal building has been sampled routinely and has contained acetone, 1,4-dichlorobenzene and methylene chloride (all common laboratory contaminants) at concentrations below drinking water Maximum Contaminant Levels. Water is treated for taste and odor control via activated carbon and is softened and pH adjusted.

Sampling of the seeps along Grand Sprute Run, where the water table meets the ground surface and runs down the banks and into the stream, was first conducted in 2000 and revealed concentrations of PCE up to 923 ppb and TCE up to 179 ppb in surface water. PCE levels reached 330 and 220 ppb in 2005 and 2008, respectively, in areas directly to the west of the former lagoon area. Sediment sampling conducted along the banks of Grand Sprute Run in February 2000 and June 2005 revealed elevated concentrations of PCE ranging from 0.465 ppm to 25 ppm and TCE concentrations up to 2.1 ppm. These sampling events were conducted by the NJDEP and indicated that contaminated groundwater from the Site is discharging into Grand Sprute Run.

EPA conducted removal assessment activities at the Site in spring 2012 focused on the release into Grand Sprute Run. On March 29, 2012, EPA identified total of six seeps, denoted Seeps A through F, along the banks of Grand Sprute Run in areas where VOC contamination was either present during the 2000, 2005 or 2008 NJDEP sampling events, or could potentially be found based on the direction of groundwater flow in the area. Between April 9 and 16, 2012, EPA sampled the surface water and sediment at 27 locations along Grand Sprute Run and its seeps, as well as pore water at several locations, to determine whether the VOC plume emanating from the Site poses an acute risk to ecological receptors in the area. The sampling points included a total of 20 locations at transects of each of the six seeps: the location where the groundwater exited the bank, the corresponding location within the stream and at least one point between those two locations. In addition, samples were collected from Grand Sprute Run in three downstream locations, two mid-stream locations between seeps and two upstream locations north of Route 322. All samples were analyzed for VOCs, SVOCs, PCBs and metals, including mercury and cyanide. A Sample Location Map which includes all PCE and TCE results is included as Attachment B. The Trip Report for this assessment is included as Attachment C.

Results indicated the presence of VOC contamination along Grand Sprute Run; VOCs were detected in the surface water, sediment and/or pore water at 24 of the 27 locations sampled. Although most of the detections were low-level, in Seep D, PCE concentrations were detected up to 1,700 ppb in surface water and up to 11 ppm in sediment, and TCE concentrations reached 150 ppb in surface water and 1.0 ppm in sediment. Many other VOCs were detected in several locations within surface water, sediment and pore water, including 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA), cis-1,2-DCE, benzene and chlorobenzene. Numerous SVOCs, including benzo(a)pyrene up to 1.8 ppm, were detected in sediment. Low levels of PCBs (less than

approximately 54 ppb), including Aroclor-1260 and Aroclor-1242, and low levels of cyanide (less than approximately 7.9 ppm) were detected in some of the sediment samples; however, neither of these contaminants were detected in surface water or pore water. Sampling results are included as Attachment D. This assessment did not completely define the extent of the contamination at the Site, as low-level VOCs were detected in the furthest downstream sampling location.

Only two detections of VOCs in the surface water within Grand Sprute Run (and eight additional detections in the surface water within the seeps) exceeded EPA's Maximum Contaminant Levels (MCLs) for drinking water, and several additional detections exceeded the conservative EPA Surface Water Human Health Criteria. Two PCE detections in sediment exceeded the non-residential NJDEP Soil Cleanup Criteria, but these detections were below the applicable EPA Screening Level. One TCE detection in sediment exceeded the EPA Screening Level, but was below the non-residential NJDEP Soil Cleanup Criteria. No exceedences were detected within pore water. Most of the surface water and sediment exceedences were located within Seeps D and E, which are heavily vegetated and not easily accessible. Although turkey hunting occurs in the Raccoon Creek Wildlife Management Area along Grand Sprute Run, EPA did not observe evidence of human activity near the areas where higher levels of contamination exist (Seeps D and E). No manmade structures, paths or refuse were observed in these locations, and it did not appear that Grand Sprute Run is utilized as a drinking water source or for frequent recreation. Therefore, the human ingestion and direct contact exposure pathways associated with the on-site surface water and sediment contamination are not complete and significant enough to present an imminent and substantial endangerment to public health or welfare.

To evaluate the risk to ecological receptors posed by the contamination along Grand Sprute Run, EPA's Environmental Response Team reviewed all sampling results and completed a Screening Level Aquatic Ecological Risk Analysis (SLERA) of PCE and TCE in Surface Water, Sediment and Pore Water Samples for the Site. The data were evaluated for low-level, chronic exposures against Screening Ecological Values (SEVs) for surface water and sediment. In sediment, four PCE detections (within Seeps C, D and E) exceeded the SEV and one TCE detection (in Seep D) exceeded the SEV; however, the data showed mostly low magnitudes of exceedences, and only one PCE detection (in Seep D) exceeded the SEV by a significant amount. In surface water, only one PCE sample exceeded the SEV, and no TCE samples exceeded the conservative SEV. The highest PCE detection in surface water was orders of magnitude below levels which may be lethal to local organisms within four days. Overall, the analysis concluded that "it does not appear that any of the results indicate an immediate or acute threat to life or survival of the ecological receptors." Chronic, sub-lethal (growth and reproduction) effects may occur and may stress some populations of aquatic invertebrates and/or fish via direct exposure in isolated areas, but these limited effects are not expected to affect the ecosystem as a whole. In addition, PCE and TCE are not bioaccumulative compounds; therefore, their presence on-site is not expected to impact the food chain or the overall structure of the ecosystem. The SLERA is included as Attachment E. This information may be utilized by EPA's remedial program if the Site is finalized on the NPL.

Findings of the removal assessment field work indicates that there has been a release of CERCLA-designated substances (as defined in Section 101[14] of CERCLA, 42 U.S.C. § 9601) at the Site, which is a facility as defined under section 101(9) of CERCLA. Low-level VOCs were detected in soil and surface water over an area of approximately 0.3 mile along Grand Sprute Run, as estimated using an aerial photograph, and elevated VOC levels are present in limited areas. Despite the presence of hazardous substances in the soil and surface water, conditions at the Site do not meet the requirements of Section 300.425 (b) of the National Contingency Plan for the undertaking of a CERCLA removal action at this time. The ecological risk analysis indicated that PCE and TCE are not present on-site in sufficient concentrations to represent an immediate or acute threat to the ecosystem or impact the food chain or the ecosystem as a whole. Due to the planned listing of the Site on the NPL, there will be an appropriate response mechanism to address the risk of long-term, sub-lethal chronic exposure posed to the certain organisms along Grand Sprute Run. In addition, based on site observations and current information, human contact with contaminated soil and surface water is minimal and there is not a complete exposure pathway to humans that presents an imminent and substantial endangerment to the public health or welfare from the on-site contamination. Based on the available information, a CERCLA removal action is not warranted at this time.

A copy of this RSE and information regarding EPA's assessment activities will be provided to the EPA Remedial Program and NJDEP. The EPA's Remedial Program will continue to monitor potential threats posed by the Site and will continue to evaluate options to remediate the Site as appropriate.

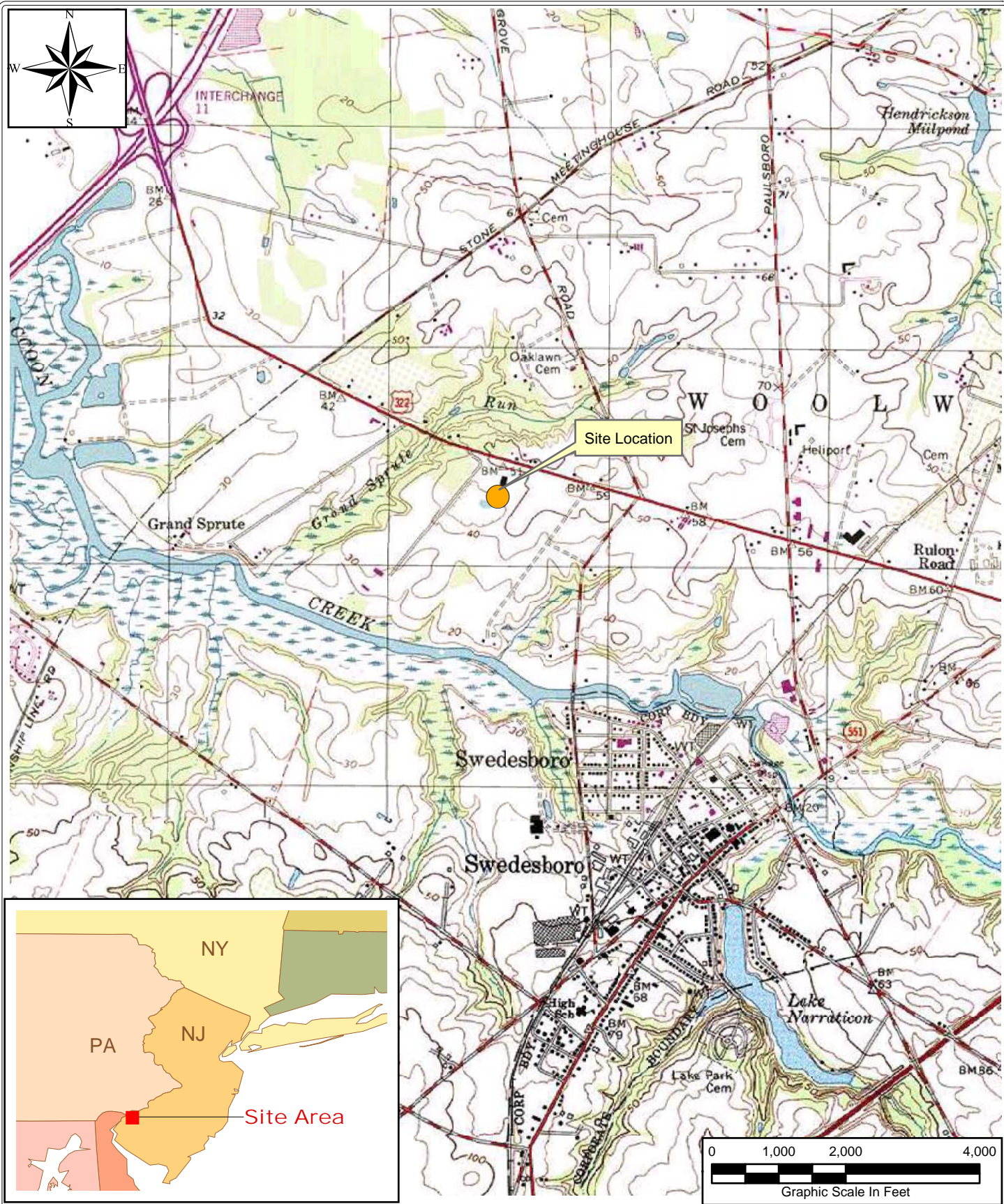
cc: J. Rotola, ERRD-RAB
E. Wilson, ERRD-RAB
J. Davila, ERRD-SPB
R. Hayton, NJDEP


LIST OF ATTACHMENTS

- ATTACHMENT A:** Site Location Map
- ATTACHMENT B:** Sample Location Map with PCE and TCE Analytical Results
- ATTACHMENT C:** Surface Water Migration Pathway and Removal Assessment Sampling Trip Report
- ATTACHMENT D:** Removal Assessment Validated Data Tables
- ATTACHMENT E:** Screening Level Aquatic Ecological Risk Analysis of PCE and TCE Surface Water, Sediment and Pore Water Samples Collected 9-16 April, 2012

ATTACHMENT A

Site Location Map



LEGEND:
 Site Location
SOURCE:
National Geographic TOPO! U.S. Geologic Survey (USGS). 7.5 Minute Series (Topographic) Quadrangles: Bridgeport, NJ & PA, 1995.
PROJECT:
Matlack, Inc.
CLIENT NAME:
EPA

TITLE:
Site Location Map Matlack, Inc. Woolwich Township Gloucester County, NJ
DATE:
December 2011
FIGURE #:
1



ATTACHMENT B

Sample Location Map with PCE and TCE Analytical Results



SCALE
1:1,100

LEGEND

- Sample Location
- Wetland Delineation Line
- Unlined Lagoon
- Facility Boundary

Notes(s)
» Seeps identified as A,B, C, D, E, and F
» Locations B1, C1, D1, E1 and F1 identify the first surface expression of seeps B, C, D, E and F respectively
» Pore water samples were collected only from the stream-bed of Grand Spruce Run (GSR)
» µg/Kg - Micrograms per Kilogram
» µg/L - Micrograms per Liter
» All results depicted are validated values

Figure 1: PCE/TCE Results For Surface Water, Pore Water and Sediment Samples

MATLACK, INC. SITE
WOOLWICH, NEW JERSEY

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072

In Association With
Avatar Environmental, LLC,
Innovative Technological Solutions, Inc. &
Scientific and Environmental Associates, Inc.

GIS ANALYST:	F. CAMPBELL
EPA OSC:	M. ALFERMAN
RST SPM:	T. BENTON
FILENAME:	OV SAMPLE LOCATION MAP.MXD
FIGURE:	1
REVISION:	2
DATE MODIFIED:	07/16/2012



ATTACHMENT C

Surface Water Migration Pathway and Removal Assessment Sampling Trip Report



WESTON SOLUTIONS, INC.
205 CAMPUS DRIVE
EDISON, NEW JERSEY 08837
732-417-5800 • FAX: 732-417-5801

The Trusted Integrator for Sustainable Solutions

May 2, 2012

Ms. Margaret Alferman, On-Scene Coordinator
U.S. Environmental Protection Agency
2890 Woodbridge Ave MS-211
Edison, NJ 08837-3679

Mr. Juan Davila, Work Assignment Manager
U.S. Environmental Protection Agency
290 Broadway - 18th Floor
New York, NY 10007-1866

Document Control Nos.: 1645-2A-AVSM and RST2-02-F-1998

**Subject: Surface Water Migration Pathway and Removal Assessment Sampling Trip Report
Matlack Inc.
Contract No.: EP-S5-06-04, TDD No.: S05-0013-1110-012
EP-W-06-072, TDD No.: TO-0024-0204**

Dear Ms. Alferman and Mr. Davila,

Weston Solutions, Inc. (WESTON®) is pleased to submit the Sampling Trip Report for samples collected during the Matlack Inc. surface water migration pathway sampling event. WESTON personnel collected surface water, sediment, and pore water from locations in and adjacent to Grand Sprute Run, including samples collected from locations to demonstrate background conditions. Samples were collected from April 9 through April 16, 2012.

The Sample Location Map (Figure 2) and Attachment 1 (traffic reports/chain of custody records and airbills) are included in this Sampling Trip Report. If you have any questions, please contact me at (732) 417-5808 or Edmund Knyfd at (732) 585-4441.

Very truly yours,

WESTON SOLUTIONS, INC.

A handwritten signature in cursive script, reading "Michele Capriglione".

Michele Capriglione
Principal Project Scientist

enclosure

cc: E. Knyfd, WESTON
C. Romano, EPA (w/o enclosure)
I. Acosta, EPA (w/o enclosure)
W.S. Butterfield, WESTON (w/o enclosure)
file

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SAMPLING TRIP REPORT

SITE NAME: Matlack Inc.
DCN: 1645-2A-AVSM
Contract Laboratory Program (CLP) Case No.: 42434

EPA I.D. NO.: NJD043584101

SAMPLING DATE: April 9 - 16, 2012

1. Site Location: Refer to Figure 1
2. Sample Locations: Refer to Figure 2
3. Sample Descriptions: Refer to Table 1
4. Laboratories Receiving Samples:

Analysis

Name and Address of Laboratory

Volatile Organic Compounds (VOC),
Semivolatile Organic Compounds (SVOC),
and Aroclors

Liberty Analytical Corporation
501 Madison Avenue
Cary, North Carolina 27513

Inorganics (including mercury and cyanide)

Bonner Analytical Testing Company
2703 Oak Grove Road
Hattiesburg, Mississippi 39402

Total Organic Carbon (TOC)
and Grain Size

USEPA Region 2
Division of Environmental Science and
Assessment (DESA) Laboratory
2890 Woodbridge Ave.
Bldg. 209, MS-230
Edison, New Jersey 08837

5. Sample Dispatch Data:

- Two sediment samples and two surface water samples for Target Compound List (TCL) VOC, SVOC, and Aroclor analysis and one aqueous sample (trip blank) for TCL VOCs were shipped to Liberty Analytical Corporation on 04/09/12 at 1900 hours via Federal Express Airbill No. 875094866672.

- Two sediment samples and two surface water samples for Target Analyte List (TAL) inorganic (including mercury and cyanide) analysis were shipped to Bonner Analytical Testing Company on 04/09/12 at 1900 hours via Federal Express Airbill No. 8750994866661.
- One sediment sample and one surface water sample for TCL VOC, SVOC, and Aroclor analysis and one aqueous sample (trip blank) for TCL VOCs were shipped to Liberty Analytical Corporation on 04/10/12 at 1600 hours via Federal Express Airbill No. 874178390158.
- One sediment sample and one surface water sample for TAL inorganic (including mercury and cyanide) analysis were shipped to Bonner Analytical Testing Company on 04/10/12 at 1600 hours via Federal Express Airbill No. 874178390147.
- Five sediment samples and five surface water samples for TCL VOC, SVOC, and Aroclor analysis, and one aqueous sample (trip blank) for TCL VOCs, were shipped to Liberty Analytical Corporation on 04/11/12 at 2030 hours via Federal Express Airbill No. 874178390170.
- Five sediment samples and five surface water samples for TAL inorganic (including mercury and cyanide) analysis were shipped to Bonner Analytical Testing Company on 04/11/12 at 2030 hours via Federal Express Airbill No. 874178390169.
- Seven sediment samples for TOC and grain size analysis were shipped to the USEPA Region 2 DESA Laboratory on 04/11/12 at 2030 hours via Federal Express Airbill No. 875094866330.
- Twelve sediment samples, 12 surface water samples, four pore water samples, and one aqueous sample (rinsate blank) for TCL VOC, SVOC, and Aroclor analysis, and one aqueous sample (trip blank) for TCL VOCs, were shipped to Liberty Analytical Corporation on 04/12/12 at 2100 hours via Federal Express Airbill No. 874178390206. Ten of the eleven coolers under Federal Express Airbill No. 874178390206 were incorrectly delivered to Bonner Analytical Testing Company. Bonner Analytical Testing Company redelivered the coolers to Liberty Analytical Corporation. No sample holding times were compromised.
- Six sediment samples, six surface water samples, two pore water samples, and one aqueous sample (rinsate blank) for TCL VOC, SVOC, and Aroclor analysis, and one aqueous sample for TCL VOCs (trip blank), were shipped to Liberty Analytical Corporation on 04/13/12 at 1900 hours via Federal Express Airbill No. 874178390191.
- Three sediment samples, three surface water samples, one pore water samples, and one aqueous sample (rinsate blank) for TCL VOC, SVOC, and Aroclor analysis, and one pore water sample and one aqueous sample (trip blank) for TCL VOCs, were shipped to Liberty Analytical Corporation on 04/16/12 at 1830 hours via Federal Express Airbill No. 874178390180.
- Twenty-one sediment samples, twenty-one surface water samples, seven pore water samples, and three aqueous (rinsate blank) samples for TAL inorganic (including mercury and cyanide) analysis were shipped to Bonner Analytical Testing Company on 04/16/12 at 1830 hours via Federal Express Airbill No. 874178390217.

- Seventeen sediment samples for TOC and grain size analysis were hand delivered to the EPA Region 2 DESA Laboratory on 04/16/12 at 1115 hours.
- Three sediment samples for TOC and grain size analysis were hand delivered to the EPA Region 2 DESA Laboratory on 04/17/12 at 1020 hours.

6. On-Site Personnel:

<u>Name</u>	<u>Company</u>	<u>Duties on Site</u>
Margaret Alferman	EPA	On-Scene Coordinator
Edmund Knyfd	WESTON	Site Project Manager, Site Health and Safety Officer, Sampler, Field Documentation, Global Positioning System (GPS) Data Collection
Michele Capriglione	WESTON	Sampler, Field Documentation, GPS Data Collection
Joel Petty	WESTON	Sample Management Officer (SMO)
Sean Hettinger	WESTON	Sampler, SMO Assistant
Joel Siegel	WESTON	Sampler, GPS Data Collection
Joseph Bundens	WESTON	Sampler
Aleksandra Mallon	WESTON	Sampler
Scott Snyder	WESTON	Sampler
Mark Conover	WESTON	Sampler

7. Sampling Activities/Methodology:

From April 9-16, 2012, WESTON personnel collected a total of 29 surface water samples (including two environmental duplicate samples), 8 pore water samples, and 29 sediment samples (including two duplicates) from the stream and seeps of Grand Sprute Run. Grand Sprute Run is a minimal stream located approximately 500 feet west-northwest of the Matlack site. Ground water from beneath the Matlack site discharges to the Grand Sprute Run via seeps located along the eastern bank of the stream. On March 28, 2012 WESTON and EPA personnel identified six seeps (designated as "Seep A" through "Seep F"). A total of 27 locations were sampled. The sample locations can be divided into two groups: stream bed sample locations from the eastern bank of Grand Sprute Run (13 locations) and seep sample locations from the seeps adjacent to Grand Sprute Run (multiple locations along each seep for a total of 14 locations). All samples were collected for VOCs, SVOCs, PCBs and metals, including mercury and cyanide, with the exception of PW-025-18-001, which was collected for VOCs only.

Surface water, sediment, and pore water (where available) samples were collected from 13 locations in Grand Sprute Run, six of which correlate to seeps. With the exception of sample location C4, all stream bed samples were collected beginning with the most downstream sample location (GSR-DST-1) moving to the most upstream sample location (GSR-BKG-2). All stream bed samples were collected from depositional environments during low tide conditions on the eastern banks of Grand Sprute Run. All stream bed samples were collected in the following order: first surface water, then pore water (where available), and lastly sediment. At all stream bed sample locations, surface water was collected directly into sample containers with the sampler standing downgradient of the sample collection activity. An attempt to collect pore water was made at each stream bed sample location; first at 6 inches below the stream bed and then at 18 inches below the stream bed. The decontaminated pore water sampling device, fitted with dedicated screening in order to facilitate sampling in muddy conditions, was advanced to six inches beneath the stream bed; the device was opened and purging attempted; if pore water was obtained, the device was purged for three volumes and the sample collected. In conjunction with the pore water samples, WESTON collected two rinsate blank samples to demonstrate that the pore water sampling device was decontaminated appropriately.

At seep locations, seep water and sediment samples were collected along transect lines heading from the stream bed to the beginning of the seep where the initial (most eastward) expression of seep water was observed. With the exception of "Seep A", where no intermediate seep location was identified, intermediate locations along transect lines within each seep were sampled. Along each seep, the samples were collected from the stream bed toward the initial expression of seep water in the following order: first surface water, then sediment. Seep water sample locations were biased toward where seep water flow was observed. All VOC fractions of seep water samples were collected directly into sample vials via flow. The remaining fractions were collected in one of two ways: 1) directly into sample containers via flow; or 2) a hole was dug using a decontaminated shovel and dedicated disposable scoop, seep water was allowed to accumulate in the hole, then the sample was collected directly into sample containers from seep water that accumulated in the hole.

All samples were collected within areas determined to be Hazard Ranking System (HRS)-eligible wetlands, according to a wetland delineation performed by WESTON on March 28-29, 2012. Upon arrival at each sample location, care was taken to ensure that the location was not disturbed. All sediment samples were collected using the same method: the VOC fraction was collected directly from the ground surface using dedicated EnCore sampling devices, then the remaining fractions were homogenized using

dedicated, disposable aluminum trays and plastic scoops. Detailed information regarding each sample collected is presented in Table 1.

WESTON logged sample locations electronically using GPS equipment. WESTON performed post-processing differential correction of the GPS data in accordance with the EPA Region 2 GPS Standard Operating Procedures (SOPs). The processed GPS data was transferred to the Sample Location Map (Figures 2) using Geographic Information System (GIS) software.

All samples were collected as part of the Matlack Inc. work assignment. The sediment and aqueous samples collected by WESTON were designated to be analyzed for TCL VOCs, TCL SVOCs, TCL Aroclors by the Liberty Analytical Corporation laboratory and for TAL inorganics (including mercury and cyanide) by the Bonner Analytical Testing Company laboratory. In addition, the sediment samples collected by WESTON were designated to be analyzed for TOC and grain size by the EPA Region 2 DESA Laboratory. In instances where samples designated for TAL inorganic (including mercury and cyanide) and TOC and grain size analyses were held prior to shipment they were kept on ice in custody sealed coolers. Traffic Reports and Airbills are presented in Attachment 1.

8. Report Prepared by: Michele Capriglione Date: May 2, 2012
Michele Capriglione

9. Report Approved by: Edmund Knyfd Date: May 2, 2012
Edmund Knyfd, CPG

Table 1
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SW-001-001	GSR-DST-1	BA8D5	MBA8D5	04/09/2012	1245	The GSR-DST-1 location is the furthest downstream sample location. Surface water collected from the eastern side of Grand Sprute Run directly into sample containers.
SW-001-002	GSR-DST-1	BA8D6	MBA8D6	04/09/2012	1245	Duplicate of SW-001-001.
SD-001-0006-001	GSR-DST-1	BA8D7	MBA8D7	04/09/2012	1340	Sediment sample collected from a depositional location along the eastern bank of Grand Sprute Run. Sediment description: dark-brown clay with trace sand; abundant partially decomposed organics. Sediment sample depth: 0-6 inches.
SD-001-0006-002	GSR-DST-1	BA8D8	MBA8D8	04/09/2012	1340	Duplicate of SD-001-006-002.
SW-002-001	GSR-DST-2	BA8E0	MBA8E0	04/10/2012	1030	The GSR-DST-2 location is approximately 250 feet upstream of the furthest downstream sample location (GSR-DST-1). Surface water collected from the eastern side of Grand Sprute Run directly into sample containers. Matrix Spike/Matrix Spike Duplicate (MS/MSD) collected for Quality Assurance Quality Control (QA/QC) purposes.
SD-002-0006-001	GSR-DST-2	BA8E9	MBA8E9	04/10/2012	1100	Sediment sample collected from depositional location along the eastern bank of Grand Sprute Run. Sediment description: dark-brown clay with trace sand; abundant partially decomposed organics. Sediment sample depth: 0-6 inches. MS/MSD collected for QA/QC purposes.
SW-003-001	GSR-DST-3	BA8E1	MBA8E1	04/11/2012	1100	The GSR-DST-3 location is approximately 250 feet upstream of the GSR-DST-2 location. Surface water collected from the eastern side of Grand Sprute Run directly into sample containers.
SD-003-0006-001	GSR-DST-3	BA8F1	MBA8F1	04/11/2012	1115	Sediment sample collected from a depositional location created by rivulets feeding the eastern side of Grand Sprute Run. Sediment description: dark-brown clay and silt with trace sand; abundant partially decomposed organics. Sediment sample depth: 0-6 inches.

Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SW-004-001	F5	BA8E8	MBA8E8	04/11/2012	1150	The F5 location is in Grand Sprute Run on the eastern bank directly in line with the "Seep F". Surface water collected from the eastern side of Grand Sprute Run directly into sample containers.
SD-004-0006-001	F5	BA8F2	MBA8F2	04/11/2012	1220	Sediment sample collected from a depositional location approximately 10 feet downstream of rivulets feeding the eastern side of Grand Sprute Run. Sediment description: gray and brown organic clay and sand. Sediment sample depth: 0-6 inches.
SW-005-001	F4	BA8E2	MBA8E2	04/11/2012	1440	The F4 location is in a wet along "Seep F" where a slow but consistent flow was observed. Surface water collected directly into sample containers.
SD-005-0006-001	F4	BA8F3	MBA8F3	04/11/2012	1450	Sediment sample collected from a depositional location where sand was observed to be deposited on seep bed surface. Sediment description: dark brown clay and sand; abundant decomposed organics. Sediment sample depth: 0-6 inches.
SW-006-001	F3	BA8E3	MBA8E3	04/11/2012	1525	The F3 location is the mid-point of the wet area defined as "Seep F"; however, just upgradient (east) of the F3 location the ground surface was dry. The slight flow of seep water was observed at this location. Surface water collected directly into sample containers, which were dug into the downgradient portion of the seep in order to facilitate seep water flow.
SD-006-0006-001	F3	BA8F4	MBA8F4	04/11/2012	1625	Sediment sample collected from a saturated location. Sediment description: dark brown fine sand, silt and clay; some organics. Sediment sample depth: 0-6 inches.
SW-007-001	F2	BA8E4	MBA8E4	04/11/2012	1800	The F2 location is in a wet but flat area along "Seep F". A small weir-like dam was fashioned out of a dedicated, disposable aluminum pan from which clear seep water trickled over. VOCs and PCBs were collected utilizing the weir-like dam. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. SVOCs and inorganics including mercury and cyanide were collected by filling sample containers with seep water that accumulated in the hole.

Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SD-007-0006-001	F2	BA8F5	MBA8F5	04/11/2012	1745	Sediment sample collected from a saturated location. Sediment description: dark brown fine sand, silt and clay; some organics. Sediment sample depth: 0-6 inches.
SW-008-001	F1	BA8E5	MBA8E5	04/12/2012	0900	The F1 location is the first (most eastward) expression of seep water in "Seep F". VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.
SD-008-0006-001	F1	BA8F6	MBA8F6	04/12/2012	1000	Sediment sample collected from a saturated location. Sediment description: dark-brown fine sand, silt and clay; some organics. Sediment sample depth: 0-4 inches.
SW-009-001	C4	BA8E6	MBA8E6	04/12/2012	0905	The C4 location is in Grand Sprute Run, 3 feet downstream of where "Seep C" water flows into Grand Sprute Run; area appears depositional (mounded sediment). Surface water collected from the eastern side of Grand Sprute Run directly into sample containers.
PW-009-06-001	C4	BA8E7	MBA8E7	04/12/2012	0930	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging more than three volumes of the sampling device. Pore water sample collected from 6 inches below the stream bed.
SD-009-0006-001	C4	BA8F7	MBA8F7	04/12/2012	1005	Sediment sample collected from depositional area on eastern bank of grand Sprute Run. Sediment description: dark-brown clayey sand, partially decomposed organics. Sediment sample depth: 0-6 inches.
SW-010-001	E3	BA8F9	MBA8F9	04/12/2012	1120	The E3 location is in Grand Sprute Run just downgradient of where seep water from "Seep E" enters Grand Sprute Run. Surface water flow readily observed; sample collected directly into sample containers.
PW-010-06-001	E3	BA8G0	MBA8G0	04/12/2012	1125	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging more than three volumes of the sampling device. Pore water sample collected from 6 inches below center of stream bed.

Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
PW-010-18-001	E3	BA8G1	MBA8G1	04/12/2012	1155	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging for more than three volumes of the sampling device. Pore water sample collected from 18 inches below center of stream bed using pore water sampling device.
SD-010-0006-001	E3	BA8G2	MBA8G2	04/12/2012	1220	Sediment sample collected from depositional location where seep water enters Grand Sprute Run. Sediment description: dark-brown clayey sand and partially decomposed organic matter; sediment sample depth: 0-4 inches.
SW-011-001	C3	BA8G3	MBA8G3	04/12/2012	1155	The C3 location is slightly upgradient of the C4 location. Seep water was readily flowing at this location. VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.
SD-011-0006-001	C3	BA8G4	MBA8G4	04/12/2012	1220	Sediment sample collected from a depositional location. Sediment description: brown to black fine to coarse sand, little rounded pebbles, trace organic matter; sediment sample depth: 0-6 inches.
SW-012-001	C2	BA8G5	MBA8G5	04/12/2012	1235	The C2 location is the intermediate point of "Seep C". VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.
SD-012-0006-001	C2	BA8G6	MBA8G6	04/12/2012	1255	Sediment sample collected from a depositional location. Sediment description: light brown to brown fine to coarse sand, some rounded gravel, trace organic matter; sediment sample depth: 3-6 inches.
SW-013-001	E2	BA8G7	MBA8G7	04/12/2012	1240	The E2 location is on the southern side of "Seep E". Surface water sample collected from location where seep water surface flow was observed within saturated mucky area. Sample collected directly into sample containers.

Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SD-013-0006-001	E2	BA8G8	MBA8G8	04/12/2012	1300	Sediment sample collected from depositional location wet with seep water and partially decomposed organic materials. Sediment description: dark brown and gray clayey sand; sediment sample depth: 0-5 inches.
SW-014-001	E1	BA8H4	MBA8H4	04/12/2012	1440	The E1 location is the first (most eastward) expression of seep water within "Seep E". VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.
SD-014-0006-001	E1	BA8G9	MBA8G9	04/12/2012	1500	Sediment sample collected from depositional location saturated with seep water. Sediment description: brown to dark-brown sand with pebbles, some silt, trace clay; sediment sample depth: 0-6 inches.
SW-015-001	C1	BA8H5	MBA8H5	04/12/2012	1610	The C1 location is the first (most south eastward) expression of seep water within "Seep C". VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.
SD-015-0006-001	C1	BA8H0	MBA8H0	04/12/2012	1630	Sediment sample collected from a depositional location. Sediment description: tan, light-brown to brown fine to coarse sand, some pebbles, little clay, little silt; sediment sample depth: 0-6 inches.
SW-016-001	D3	BA8H6	MBA8H6	04/12/2012	1450	The D3 location is in a depositional area of Grand Sprute Run where water from "Seep D" flows in to Grand Sprute Run. Surface water collected directly into sample containers.
SD-016-0006-001	D3	BA8H1	MBA8H1	04/12/2012	1455	Sediment sample collected from a depositional location. Sediment description: gray slightly sandy silt; abundant organic material; trace sand; sediment sample depth: 0-4 inches.
SW-017-001	D2	BA8H7	MBA8H7	04/12/2012	1545	The D2 location is along the southern mid-point of "Seep D". Surface water collected directly into sample containers.
SD-017-0006-001	D2	BA8H2	MBA8H2	04/12/2012	1555	Sediment sample collected from a depositional location. Sediment description: dark brown medium grained sand and some fine gravel; sediment sample depth: 0-4 inches.

Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SW-018-001	D1	BA8H8	MBA8H8	04/12/2012	1630	The D1 location is the first (most northeastward) expression of seep water in "Seep D". Very slow surficial flow of seep water observed at this location. Surface water collected directly into sample containers, which were pressed into the downgradient portion of the seep in order to facilitate seep water flow.
SD-018-0006-001	D1	BA8H3	MBA8H3	04/12/2012	1640	Sediment description: medium brown sand abundant organic matter; sediment sample depth: 0-5 inches.
SW-019-001	GSR-MID	BA8J0	MBA8J0	04/12/2012	1730	The GSR-MID location is along the eastern bank of Grand Sprute Run where an unnamed seep flows into Grand Sprute Run. Surface water collected directly in to sample containers.
PW-019-06-001	GSR-MID	BA8J1	MBA8J1	04/12/2012	1740	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging more than three volumes of the sampling device. Pore water sample collected from 6 inches below stream bed.
SD-019-0006-001	GSR-MID	BA8H9	MBA8H9	04/12/2012	1750	Sediment sample collected from a depositional location. Sediment description: orange brown sand and gray silty organic mud; sediment sample depth: 0-6 inches.
SW-020-001	B3	BA8J3	MBA8J3	04/13/2012	0830	The B3 location is in Grand Sprute Run where seep water from "Seep B" enters Grand Sprute Run. Surface water collected from eastern bank of Grand Sprute Run directly into sample containers. MS/MSD collected for QA/QC purposes.
PW-020-06-001	B3	BA8J4	MBA8J4	04/13/2012	0850	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging more than three volumes of the sampling device. Pore water sample collected from six inches below the center of the stream bed.
SD-020-0006-001	B3	BA8J2	MBA8J2	04/13/2012	0930	Sediment sample collected from depositional location. Sediment description: gray silty sandy muck, abundant organics; sediment sample depth: 0-6 inches. MS/MSD collected for QA/QC purposes.

Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SW-021-001	A2	BA8J7	MBA8J7	04/13/2012	1020	The A2 location is in Grand Sprute Run approximately 300 feet south of Route 322; this location chosen to represent background (most upstream) conditions associated with a seep. Surface water was collected from eastern bank of Grand Sprute Run directly into sample containers.
SW-021-002	A2	BA8J8	MBA8J8	04/13/2012	1020	Duplicate of SW-021-001.
PW-021-06-001	A2	BA8J9	MBA8J9	04/13/2012	1045	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging more than three volumes of the sampling device. Pore water sample collected from 6 inches below the stream bed.
SD-021-0006-001	A2	BA8K0	MBA8K0	04/13/2012	1120	Sediment sample collected from depositional environment (mounded sediment) along the eastern side of the stream bank. Sediment description: tan medium sand, some coarse sand with pebbles; sediment sample depth 0-4 inches.
SD-021-0006-002	A2	BA8K1	MBA8K1	04/13/2012	1120	Duplicate of SD-021-006-002.
SW-022-001	B2	BA8K3	MBA8K3	04/13/2012	1050	The B2 location is an intermediate point of "Seep B". Flowing water was observed at this location. VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.
SD-022-0006-001	B2	BA8K2	MBA8K2	04/13/2012	1120	Sediment description: Brown and light-brown clay, some fine to coarse sand, little rounded pebbles, trace organic matter; sediment sample depth: 0-6 inches.
SW-023-001	B1	BA8K4	MBA8K4	04/13/2012	1420	The B1 location is the first expression of seep water at "Seep B". Flowing water was observed at this location. VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.

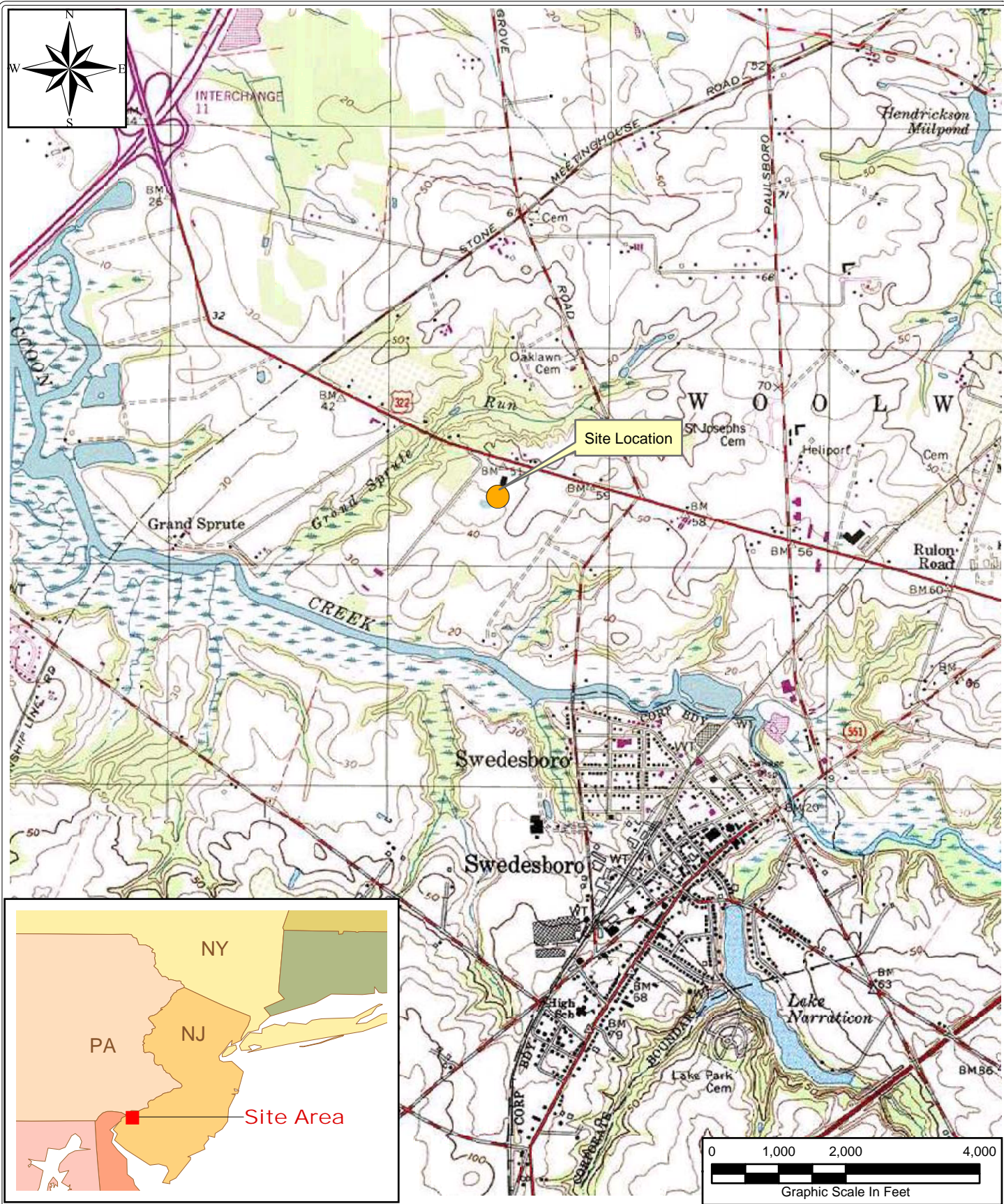
Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey


SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SD-023-0006-001	B1	BA8K5	MBA8K5	04/13/2012	1440	Sediment description: Brown and light-brown fine to coarse sand, some rounded pebbles, little organic matter; sediment sample depth: 0-6 inches.
SW-024-001	A1	BA8K7	MBA8K7	04/13/2012	1415	The A1 location is the first expression of seep water at "Seep A". Very slight flowing water was observed at this location. VOCs collected directly into sample vials. A hole was dug into the seep using a decontaminated shovel and dedicated scoop. All other parameters were collected by filling sample containers with seep water that accumulated in the hole.
SD-024-0006-001	A1	BA8K6	MBA8K6	04/13/2012	1430	Sediment description: gray silty mud, some sand with abundant decomposed organics; sediment sample depth: 3-6 inches.
SW-025-001	GSR-MID-2	BA8K9	MBA8K9	04/16/2012	1020	The GSR-MID-2 location is along eastern side of Grand Sprute Run where oxygen reducing conditions were observed (red/orange stained sediment and surface water observed). Surface water collected directly into sample containers.
PW-025-06-001	GSR-MID-2	BA8L0	MBA8L0	04/16/2012	1045	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging more than three volumes of the sampling device. Pore water sample collected from 6 inches below the stream bed.
PW-025-18-001	GSR-MID-2	BA8L1	MBA8L1	04/16/2012	1120	Pore water sample collected using dedicated tubing and a decontaminated pore water sampling device after purging for over three volumes of the sampling device. Pore water sample collected from 18 inches below the stream bed for VOCs only.
SD-025-0006-001	GSR-MID-2	BA8K8	MBA8K8	04/16/2012	1130	Sediment description: gray brown organic muck, roots, leaves, some silt and clay; sediment sample depth 0-6 inches.
SW-026-001	GSR-BKG-1	BA8L6	MBA8L6	04/16/2012	1325	The GSR-BKG-1 location is approximately 200 feet north of Route 322. This location was chosen to represent background conditions of Grand Sprute Run. Mild flow observed at this location. Surface water collected from eastern bank of Grand Sprute Run directly into sample containers.

Table 1 (continued)
Sample Descriptions
Matlack Inc. Surface Water Migration Pathway
Woolwich, New Jersey

SAMPLE NUMBER	LOCATION	ORGANIC CLP NO.	INORGANIC CLP NO.	DATE	TIME	COMMENTS
SD-026-0006-001	GSR-BKG-1	BA8L4	MBA8L4	04/16/2012	1340	Sediment sample collected from depositional environment along the eastern side of the stream bank. Sediment description: gray/brown organic muck, some silt and clay; sediment sample depth 0-6 inches.
SW-027-001	GSR-BKG-2	BA8L7	MBA8L7	04/16/2012	1410	The GSR-BKG-2 location is approximately 300 feet north of Route 322. This location was chosen to represent background conditions of Grand Sprute Run. Mild flow observed at this location. Surface water collected from eastern bank of Grand Sprute Run directly into sample containers.
SD-027-0006-001	GSR-BKG-2	BA8L5	MBA8L5	04/16/2012	1425	Sediment sample collected from depositional environment along the eastern side of the stream bank. Sediment description: gray/brown organic muck, some silt and clay; sediment sample depth 0-6 inches.
TB-040912	Trip Blank	BA8D4	NA	04/09/2012	1230	Trip blank sample collected for QA/QC; day one.
TB-041012	Trip Blank	BA8D9	NA	04/10/2012	0830	Trip blank sample collected for QA/QC; day two.
TB-041112	Trip Blank	BA8F0	NA	04/11/2012	1100	Trip blank sample collected for QA/QC; day three.
TB-041212	Trip Blank	BA8F8	NA	04/12/2012	1100	Trip blank sample collected for QA/QC; day four.
TB-041312	Trip Blank	BA8J5	NA	04/13/2012	0945	Trip blank sample collected for QA/QC; day five.
TB-041612	Trip Blank	BA8L2	NA	04/16/2012	1100	Trip blank sample collected for QA/QC; day six.
RB-041212	Rinsate Blank	BA8D3	MBA8D3	04/12/2012	1430	Rinsate Blank (decontaminated pore water sampler).
RB-041312	Rinsate Blank	BA8J6	MBA8J6	04/13/2012	1115	Rinsate Blank (decontaminated pore water sampler).
RB-041612	Rinsate Blank	BA8L3	MBA8L3	04/16/2012	1145	Rinsate Blank (decontaminated pore water sampler).

FIGURE 1
SITE LOCATION MAP



LEGEND:
 Site Location
SOURCE:
National Geographic TOPO! U.S. Geologic Survey (USGS). 7.5 Minute Series (Topographic) Quadrangles: Bridgeport, NJ & PA, 1995.
PROJECT:
Matlack, Inc.
CLIENT NAME:
EPA

TITLE:
Site Location Map Matlack, Inc. Woolwich Township Gloucester County, NJ
DATE:
December 2011
FIGURE #:
1



FIGURE 2
SAMPLE LOCATION MAP

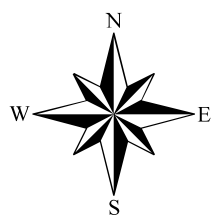
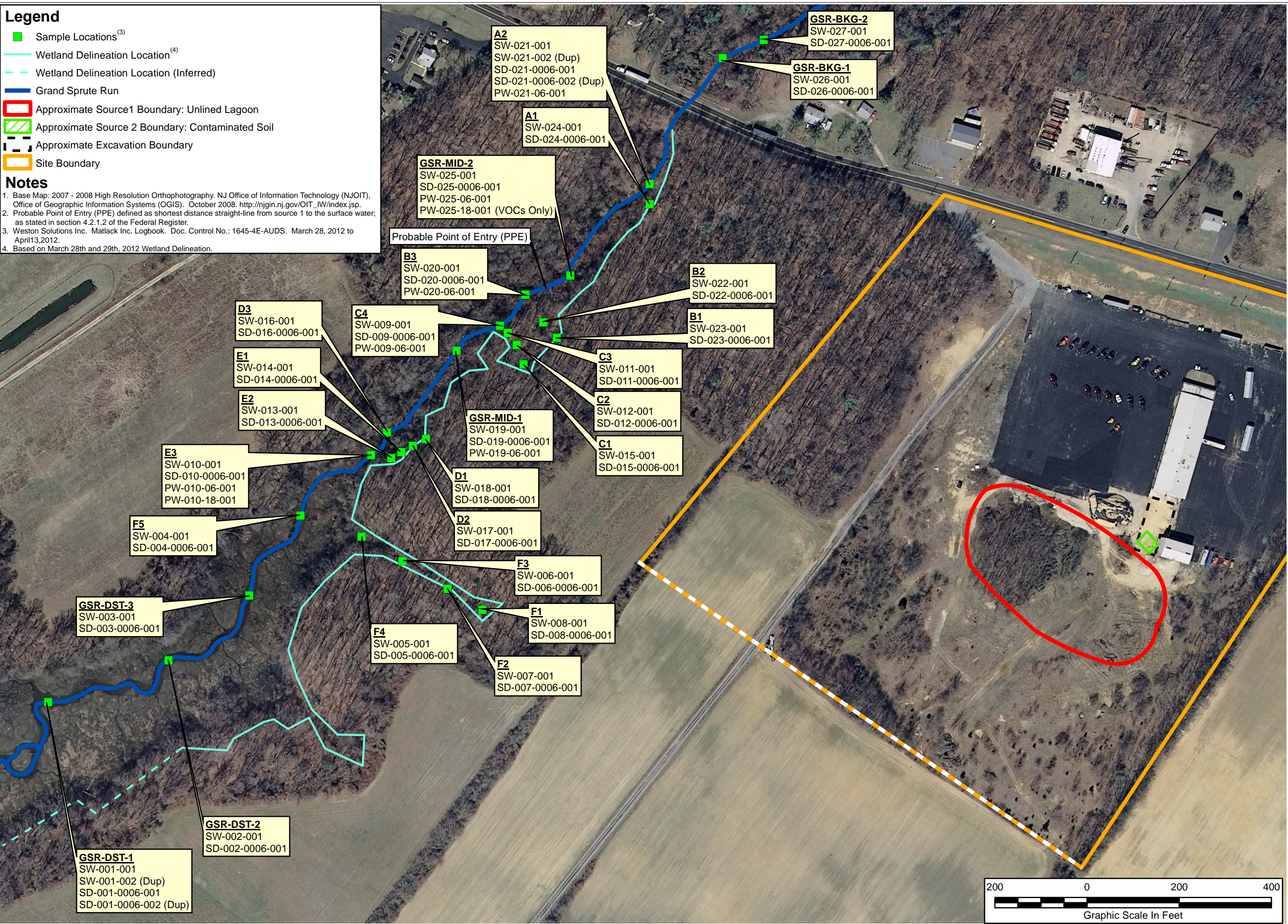
P:\SAT2\Matlack\GIS\MXD\11207_Matlack_SED_Sample_Loc.mxd

Legend

- Sample Locations⁽³⁾
- Wetland Delineation Location⁽⁴⁾
- Wetland Delineation Location (Inferred)
- Grand Sprute Run
- Approximate Source1 Boundary: Unlined Lagoon
- Approximate Source 2 Boundary: Contaminated Soil
- Approximate Excavation Boundary
- Site Boundary

Notes

- Base Map: 2007 - 2008 High Resolution Orthophotography. NJ Office of Information Technology (NJGIT), Office of Geographic Information Systems (OGIS). October 2008. http://nigin.nj.gov/OIT_IW/index.jsp.
- Probable Point of Entry (PPE) defined as shortest distance straight-line from source 1 to the surface water, as stated in section 4.2.1.2 of the Federal Register.
- Weston Solutions Inc. Matlack Inc. Logbook. Doc. Control No.: 1645-4E-AUDS. March 28, 2012 to April 13, 2012.
- Based on March 28th and 29th, 2012 Wetland Delineation.



DRAWN BY:	J. Lynes
REVIEWED BY:	M. Capriglione
PROJECT MANAGER:	G. Gilliland
SCALE:	1"=200"
DATE:	May 2012

Sample Location Map
For Surface Water Migration Pathway

TITLE:

See Map	Matlack, Inc.	EPA
PROJECT:		
CLIENT NAME:		

FIGURE #:	2
DRAWING NUMBER:	11207



ATTACHMENT 1

TRAFFIC REPORTS/CHAIN OF CUSTODY RECORDS AND AIRBILLS

USEPA

Date Shipped: 4/9/2012

Carrier Name: FedEx

Airbill No: 87509486672

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-040912-162547-0002

Cooler #: 2

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8D4	TB-040912	Trip Blank	1005	CLP TCL Volatiles	Deionized Water	4/9/2012	12:30	3	40 ml VOA	HCl pH<2	N
	BA8D5	SW-001-001	GSR-DST-1	1008	CLP TCL Volatiles	Surface Water	4/9/2012	12:45	3	40 ml VOA	HCl pH<2	N
	BA8D5	SW-001-001	GSR-DST-1	1009	CLP TCL Semivolatiles	Surface Water	4/9/2012	12:45	2	1 liter amber	4 C	N
	BA8D5	SW-001-001	GSR-DST-1	1010	CLP TCL Aroclors	Surface Water	4/9/2012	12:45	2	1 liter amber	4 C	N
	BA8D6	SW-001-002	GSR-DST-1	1013	CLP TCL Volatiles	Surface Water	4/9/2012	12:45	3	40 ml VOA	HCl pH<2	N
	BA8D6	SW-001-002	GSR-DST-1	1014	CLP TCL Semivolatiles	Surface Water	4/9/2012	12:45	2	1 liter amber	4 C	N
	BA8D6	SW-001-002	GSR-DST-1	1015	CLP TCL Aroclors	Surface Water	4/9/2012	12:45	2	1 liter amber	4 C	N
	BA8D7	SD-001-0006-001	GSR-DST-1	1017	CLP TCL Semivolatiles	Sediment	4/9/2012	13:40	1	8 oz Glass Jar	4 C	N
	BA8D7	SD-001-0006-001	GSR-DST-1	1018	CLP TCL Aroclors	Sediment	4/9/2012	13:40	1	8 oz Glass Jar	4 C	N
	BA8D7	SD-001-0006-001	GSR-DST-1	1019	CLP TCL Volatiles	Sediment	4/9/2012	13:40	3	Encore	4 C	N
	BA8D7	SD-001-0006-001	GSR-DST-1	1027	Percent Moisture	Sediment	4/9/2012	13:40	1	4 oz Glass Jar	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/9/12	Fed Ex	4/9/12	1900						

Contact Phone: 732-570-4943

Case #: 42434

[illegible]

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

[illegible]

Contact Phone: 732-570-4943

Case #: 42434

Jared Petty

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

[illegible]

FedEx US Airbill

Express

FedEx Tracking Number

8750 9486 6661

From Please print and press hard.

Date 4/9/12

Sender's FedEx Account Number

400356103 COUNT NUMBER ONLY

Sender's Name Joel Petty

Phone 732 1570-4943

Company Weston Solutions, Inc

Address 1090 King Georges Post Rd

Suite 201

City Edison

State NJ

ZIP 08837

Your Internal Billing Reference

20401-135-02458233

To

Recipient's Name Chris Bonner

Phone 601 1264-2854

Company Bonner Analytical Testing Company

Address 2703 Oak Grove Road

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Mattiesburg

State MS

ZIP 39402



Ship on the go at mobile.fedex.com

Tap and hold to add a shipping label with the mobile app.

FedEx US Airbill

Express

FedEx Tracking Number

8750 9486 6672

From Please print and press hard.

Date 4/9/12

Sender's FedEx Account Number

400356103 COUNT NUMBER ONLY

Sender's Name Joel Petty

Phone 732 1570-4943

Company Weston Solutions, Inc

Address 1090 King Georges Post Rd

Suite 201

City Edison

State NJ

ZIP 08837

Your Internal Billing Reference

20401-135-02458233

To

Recipient's Name Bob Meierer

Phone 919 1379-4100

Company Liberty Analytical Corporation

Address 501 Madison Ave

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Cary

State NC

ZIP 27513



Learn to pack like a pro at fedex.com/packaging

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Sender's Copy

4a Express Package Service

☒ FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Standard Overnight
Next business afternoon. * Saturday Delivery NOT available.

Packages up to 150 lbs.

☐ FedEx First Overnight
Earliest next business morning delivery to select locations. *

☐ FedEx 2Day
Second business day. * Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Express Saver
Third business day. * Saturday Delivery NOT available.

4b Express Freight Service

* To most locations.

Packages over 150 lbs.

☐ FedEx 1Day Freight
Next business day. * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

CALL 1.800.332.0807

FedEx 1Day Freight Booking No.

☐ FedEx 2Day Freight
Second business day. * Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx 3Day Freight
Third business day. * Saturday Delivery NOT available.

5 Packaging

* Declared value limit \$500.

☐ FedEx Envelope

☐ FedEx Pak *
Includes FedEx Small Pak and FedEx Large Pak.

☐ FedEx Box

☐ FedEx Tube

☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight.

☐ No Signature Required
Package may be left without obtaining a signature for delivery.

☒ Direct Signature
Someone at recipient's address may sign for delivery. Fee applies.

☐ Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

☒ No

☐ Yes
As per attached Shipper's Declaration.

☐ Yes
Shipper's Declaration not required.

☐ Dry Ice
Dry Ice, I, UN 1845

☐ Cargo Aircraft Only

7 Payment \$/lb to:

☐ Sender
FedEx Acct. No. in Section 1 will be billed.

☐ Recipient

☒ Third Party

☐ Credit Card

☐ Cash/Check

FedEx Acct. No. 402356103

Card No.

Exp. Date

Total Packages

Total Weight

Total Declared Value

Your liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

606

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Sender's Copy

4a Express Package Service

☒ FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Standard Overnight
Next business afternoon. * Saturday Delivery NOT available.

Packages up to 150 lbs.

☐ FedEx First Overnight
Earliest next business morning delivery to select locations. *

☐ FedEx 2Day
Second business day. * Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Express Saver
Third business day. * Saturday Delivery NOT available.

4b Express Freight Service

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Packages over 150 lbs.

☐ FedEx 1Day Freight
Next business day. * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

CALL 1.800.332.0807

FedEx 1Day Freight Booking No.

☐ FedEx 2Day Freight
Second business day. * Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx 3Day Freight
Third business day. * Saturday Delivery NOT available.

5 Packaging

* Declared value limit \$500.

☐ FedEx Envelope

☐ FedEx Pak *
Includes FedEx Small Pak and FedEx Large Pak.

☐ FedEx Box

☐ FedEx Tube

☒ Other

6 Special Handling and Delivery Signature Options

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☒ No

☐ Yes
As per attached Shipper's Declaration.

☐ Yes
Shipper's Declaration not required.

☐ Dry Ice
Dry Ice, I, UN 1845

☐ Cargo Aircraft Only

7 Payment \$/lb to:

☐ Sender
FedEx Acct. No. in Section 1 will be billed.

☐ Recipient

☒ Third Party

☐ Credit Card

☐ Cash/Check

FedEx Acct. No. 402356103

Card No.

Exp. Date

Total Packages

Total Weight

Total Declared Value

Your liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

606

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Airbill No: 874178390168

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041012-142316-0004

Cooler #: 2

Lab: Liberty Analytical Corporation

Case #: 42434

[illegible]

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

[illegible]

USEPA

Date Shipped: 4/10/2012

Carrier Name: FedEx

Airbill No: 874178390147

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

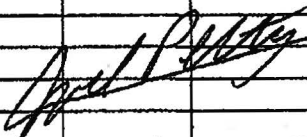
Contact Phone: 732-570-4943

No: 2-041012-141415-0003

Cooler #: 1

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8E0	SW-002-001	GSR-DST-2	1029	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/10/2012	10:30	3	1 L poly	HNO3 pH<2	Y
	MBA8E0	SW-002-001	GSR-DST-2	1030	CLP Cyanide	Surface Water	4/10/2012	10:30	3	1 L poly	NaOH pH>12	Y
	MBA8E9	SD-002-0008-001	GSR-DST-2	1074	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/10/2012	11:00	2	8 oz Glass Jar	4 C	Y
												

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples as analyzed	Joel Petty	4/10/12	Fed Ex	4/10/12	1600						

USEPA

Date Shipped: 4/11/2012

Carrier Name: FedEx

Airbill No: 874178390170

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041112-173938-0006

Cooler #: 4

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservati vs	MS/MS D
	BA8E1	SW-003-001	GSR-DST-3	1036	CLP TCL Volatiles	Surface Water	4/11/2012	11:00	3	40 ml VOA	HCl pH<2	N
	BA8E1	SW-003-001	GSR-DST-3	1037	CLP TCL Semivolatiles	Surface Water	4/11/2012	11:00	2	1 liter amber	4 C	N
	BA8E1	SW-003-001	GSR-DST-3	1038	CLP TCL Aroclors	Surface Water	4/11/2012	11:00	2	1 liter amber	4 C	N
	BA8E2	SW-005-001	F4	1041	CLP TCL Volatiles	Surface Water	4/11/2012	14:40	3	40 ml VOA	HCl pH<2	N
	BA8E2	SW-005-001	F4	1042	CLP TCL Semivolatiles	Surface Water	4/11/2012	14:40	2	1 liter amber	4 C	N
	BA8E2	SW-005-001	F4	1043	CLP TCL Aroclors	Surface Water	4/11/2012	14:40	2	1 liter amber	4 C	N
	BA8E3	SW-006-001	F3	1046	CLP TCL Volatiles	Surface Water	4/11/2012	15:25	3	40 ml VOA	HCl pH<2	N
	BA8E3	SW-006-001	F3	1047	CLP TCL Semivolatiles	Surface Water	4/11/2012	15:25	2	1 liter amber	4 C	N
	BA8E3	SW-006-001	F3	1048	CLP TCL Aroclors	Surface Water	4/11/2012	15:25	2	1 liter amber	4 C	N
	BA8E4	SW-007-001	F2	1051	CLP TCL Volatiles	Surface Water	4/11/2012	18:00	3	40 ml VOA	HCl pH<2	N
	BA8E4	SW-007-001	F2	1052	CLP TCL Semivolatiles	Surface Water	4/11/2012	18:00	2	1 liter amber	4 C	N

Special instructions:

 SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
<i>all samples all analyses</i>	<i>Joel Petty</i>	<i>4/11/12</i>	<i>FedEx</i>	<i>4/11/12</i>	<i>2030</i>						

USEPA

DateShipped: 4/11/2012

CarrierName: FedEx

AirbillNo: 874178390170

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041112-173938-0008

Cooler #: 4

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservati ve	MS/MS D
	BA8E4	SW-007-001	F2	1053	CLP TCL Aroclors	Surface Water	4/11/2012	18:00	2	1 liter amber	4 C	N
	BA8E8	SW-004-001	F5	1071	CLP TCL Volatiles	Surface Water	4/11/2012	11:50	3	40 ml VOA	HCl pH<2	N
	BA8E8	SW-004-001	F5	1072	CLP TCL Semivolatiles	Surface Water	4/11/2012	11:50	2	1 liter amber	4 C	N
	BA8E8	SW-004-001	F5	1073	CLP TCL Aroclors	Surface Water	4/11/2012	11:50	2	1 liter amber	4 C	N
	BA8F0	TB-041112	Trip Blank	1081	CLP TCL Volatiles	Deionized Water	4/11/2012	11:00	3	40 ml VOA	HCl pH<2	N
	BA8F1	SD-003-0008-001	GSR-DST-3	1083	CLP TCL Semivolatiles	Sediment	4/11/2012	11:15	1	8 oz Glass Jar	4 C	N
	BA8F1	SD-003-0008-001	GSR-DST-3	1084	CLP TCL Aroclors	Sediment	4/11/2012	11:15	1	8 oz Glass Jar	4 C	N
	BA8F1	SD-003-0008-001	GSR-DST-3	1085	CLP TCL Volatiles	Sediment	4/11/2012	11:15	3	Encore	4 C	N
	BA8F1	SD-003-0008-001	GSR-DST-3	1088	Percent Moisture	Sediment	4/11/2012	11:15	1	4 oz Glass Jar	4 C	N
	BA8F2	SD-004-0008-001	F5	1090	CLP TCL Semivolatiles	Sediment	4/11/2012	12:20	1	8 oz Glass Jar	4 C	N
	BA8F2	SD-004-0008-001	F5	1091	CLP TCL Aroclors	Sediment	4/11/2012	12:20	1	8 oz Glass Jar	4 C	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples rel. for analysis	Joel Petty	4/11/12	Fed Ex	4/11/12	2030						

USEPA

Date Shipped: 4/11/2012

Carrier Name: FedEx

Airbill No: 874178390170

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041112-173938-0006

Cooler #: 4

Lab: Liberty Analytical Corporation

Case #: 42434

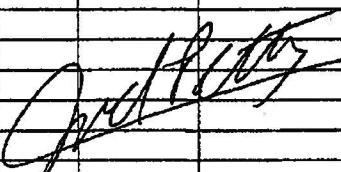
Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservati va	MS/MS D
	BA8F2	SD-004-0006-001	F5	1092	CLP TCL Volatiles	Sediment	4/11/2012	12:20	3	Encore	4 C	N
	BA8F2	SD-004-0006-001	F5	1095	Percent Moisture	Sediment	4/11/2012	12:20	1	4 oz Glass Jar	4 C	N
	BA8F3	SD-005-0006-001	F4	1097	CLP TCL Semivolatiles	Sediment	4/11/2012	14:50	1	8 oz Glass Jar	4 C	N
	BA8F3	SD-005-0006-001	F4	1098	CLP TCL Aroclors	Sediment	4/11/2012	14:50	1	8 oz Glass Jar	4 C	N
	BA8F3	SD-005-0006-001	F4	1099	CLP TCL Volatiles	Sediment	4/11/2012	14:50	3	Encore	4 C	N
	BA8F3	SD-005-0006-001	F4	1102	Percent Moisture	Sediment	4/11/2012	14:50	1	4 oz Glass Jar	4 C	N
	BA8F4	SD-006-0006-001	F3	1104	CLP TCL Semivolatiles	Sediment	4/11/2012	16:25	1	8 oz Glass Jar	4 C	N
	BA8F4	SD-006-0006-001	F3	1105	CLP TCL Aroclors	Sediment	4/11/2012	16:25	1	8 oz Glass Jar	4 C	N
	BA8F4	SD-006-0006-001	F3	1106	CLP TCL Volatiles	Sediment	4/11/2012	16:25	3	Encore	4 C	N
	BA8F4	SD-006-0006-001	F3	1109	Percent Moisture	Sediment	4/11/2012	16:25	1	4 oz Glass Jar	4 C	N
	BA8F5	SD-007-0006-001	F2	1111	CLP TCL Semivolatiles	Sediment	4/11/2012	17:45	1	8 oz Glass Jar	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
<i>all samples all analyses</i>	<i>Joel Petty</i>	<i>4/11/12</i>	<i>Fed Ex</i>	<i>4/11/12</i>	<i>2030</i>						

Contact Phone: 732-570-4943

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8F5	SD-007-0006-001	F2	1112	CLP TCL Aroclors	Sediment	4/11/2012	17:45	1	8 oz Glass Jar	4 C	N
	BA8F5	SD-007-0006-001	F2	1113	CLP TCL Volatiles	Sediment	4/11/2012	17:45	3	Encore	4 C	N
	BA8F5	SD-007-0006-001	F2	1116	Percent Moisture	Sediment	4/11/2012	17:45	1	4 oz Glass Jar	4 C	N
												

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all weapons already	Juel Petty	4/11/12	Fred G.	4/11/12	2030						

USEPA

Date Shipped: 4/11/2012

Carrier Name: FedEx

Airbill No: 874178390169

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041112-173855-0005

Cooler #: 1

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8E1	SW-003-001	GSR-DST-3	1034	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/11/2012	11:00	1	1 L poly	HNO3 pH<2	N
	MBA8E1	SW-003-001	GSR-DST-3	1035	CLP Cyanide	Surface Water	4/11/2012	11:00	1	1 L poly	NaOH pH>12	N
	MBA8E2	SW-005-001	F4	1039	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/11/2012	14:40	1	1 L poly	HNO3 pH<2	N
	MBA8E2	SW-005-001	F4	1040	CLP Cyanide	Surface Water	4/11/2012	14:40	1	1 L poly	NaOH pH>12	N
	MBA8E3	SW-006-001	F3	1044	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/11/2012	15:25	1	1 L poly	HNO3 pH<2	N
	MBA8E3	SW-006-001	F3	1045	CLP Cyanide	Surface Water	4/11/2012	15:25	1	1 L poly	NaOH pH>12	N
	MBA8E4	SW-007-001	F2	1049	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/11/2012	18:00	1	1 L poly	HNO3 pH<2	N
	MBA8E4	SW-007-001	F2	1050	CLP Cyanide	Surface Water	4/11/2012	18:00	1	1 L poly	NaOH pH>12	N
	MBA8E8	SW-004-001	F5	1069	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/11/2012	11:50	1	1 L poly	HNO3 pH<2	N
	MBA8E8	SW-004-001	F5	1070	CLP Cyanide	Surface Water	4/11/2012	11:50	1	1 L poly	NaOH pH>12	N
	MBA8F1	SD-003-0006-001	GSR-DST-3	1082	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/11/2012	11:15	1	8 oz Glass Jar	4 C	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/11/12	Fed Ex	4/11/12	2030						

USEPA

Date Shipped: 4/11/2012

Carrier Name: FedEx

Airbill No: 874178390169

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

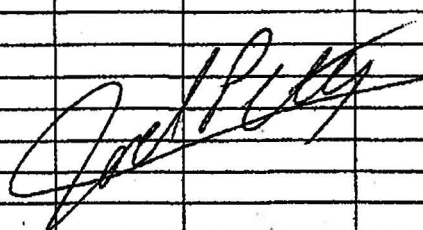
Contact Phone: 732-670-4943

No: 2-041112-173855-0005

Cooler #: 1

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8F2	SD-004-0006-001	F5	1089	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/11/2012	12:20	1	8 oz Glass Jar	4 C	N
	MBA8F3	SD-005-0006-001	F4	1096	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/11/2012	14:50	1	8 oz Glass Jar	4 C	N
	MBA8F4	SD-006-0006-001	F3	1103	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/11/2012	16:25	1	8 oz Glass Jar	4 C	N
	MBA8F5	SD-007-0006-001	F2	1110	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/11/2012	17:45	1	8 oz Glass Jar	4 C	N
												

Special Instructions:

 SAMPLES TRANSFERRED FROM
 CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/11/12	Fed Ex	4/11/12	2030						

AirbillNo: 875094866330

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041112-185159-0007

Cooler #: 1

Lab: DESA

Case #: 42434

[illegible]

Special Instructions:	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #
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[illegible]

FedEx US Airbill

Express

FedEx Tracking Number 8741 7839 0170

1 From Please print and press hard.

Date 4/11/12 Sender's FedEx Account Number 402356103

Sender's Name Joel Petty Phone 732 570-4943

Company Weston Solutions, Inc.

Address 1090 King Georges Post Rd Suite 201

City Edison State NJ ZIP 08837

2 Your Internal Billing Reference

First 24 characters will appear on invoice. 20401-1350024-5233

3 To Recipient's Name Bob Meierer Phone 919 379-4100

Company Liberty Analytical Corporation

Address 501 Madison Ave

City Cary State NC ZIP 27513

City Cary State NC ZIP 27513



FedEx US Airbill

Express

FedEx Tracking Number 8741 7839 0169

1 From Please print and press hard.

Date 4/11/12 Sender's FedEx Account Number 402356103

Sender's Name Joel Petty Phone 732 570-4943

Company Weston Solutions, Inc.

Address 1090 King Georges Post Rd Suite 201

City Edison State NJ ZIP 08837

2 Your Internal Billing Reference

First 24 characters will appear on invoice. 20401-1350024-5233

3 To Recipient's Name Chris Bonner Phone 601 264-2854

Company Bonner Analytical Testing Company

Address 2703 Oak Grove Road

City Hannesburg State MS ZIP 39402

City Hannesburg State MS ZIP 39402



Sender's Copy

4a Express Package Service

☒ FedEx Priority Overnight ☐ FedEx Standard Overnight ☐ FedEx First Overnight
☐ FedEx 2Day ☐ FedEx Express Saver
☐ Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ Third business day. Saturday Delivery NOT available.

4b Express Freight Service

☐ FedEx 1Day Freight ☐ FedEx 2Day Freight ☐ FedEx 3Day Freight
☐ Next business day. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ Third business day. Saturday Delivery NOT available.

5 Packaging

☐ FedEx Envelope ☐ FedEx Pak ☐ FedEx Box ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery ☐ No Signature Required ☒ Direct Signature ☐ Indirect Signature
☐ Not available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight. ☐ Package may be left without obtaining a signature for delivery. ☒ Someone at recipient's address may sign for delivery. Fee applies. ☐ If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

☒ No ☐ Yes ☐ Yes ☐ Dry Ice ☐ Cargo Aircraft Only
☐ One box must be checked. ☐ Yes ☐ Shipper's Declaration not required. ☐ Dry Ice, ICAO, IATA, UN 1845 x kg

7 Payment Bill to:

☐ Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check
 FedEx Acct. No. 402356103
 Total Packages 1 Total Weight 205 lbs. Total Declared Value \$ 0.00

Our liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability. 606

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4a Express Package Service

☒ FedEx Priority Overnight ☐ FedEx Standard Overnight ☐ FedEx First Overnight
☐ FedEx 2Day ☐ FedEx Express Saver
☐ Next business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ Third business day. Saturday Delivery NOT available.

4b Express Freight Service

☐ FedEx 1Day Freight ☐ FedEx 2Day Freight ☐ FedEx 3Day Freight
☐ Next business day. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ Third business day. Saturday Delivery NOT available.

5 Packaging

☐ FedEx Envelope ☐ FedEx Pak ☐ FedEx Box ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery ☐ No Signature Required ☒ Direct Signature ☐ Indirect Signature
☐ Not available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight. ☐ Package may be left without obtaining a signature for delivery. ☒ Someone at recipient's address may sign for delivery. Fee applies. ☐ If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

☒ No ☐ Yes ☐ Yes ☐ Dry Ice ☐ Cargo Aircraft Only
☐ One box must be checked. ☐ Yes ☐ Shipper's Declaration not required. ☐ Dry Ice, ICAO, IATA, UN 1845 x kg

7 Payment Bill to:

☐ Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check
 FedEx Acct. No. 402356103
 Total Packages 1 Total Weight 54 lbs. Total Declared Value \$ 0.00

Our liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability. 606

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FedEx. US Airbill

Express

FedEx
Tracking
Number

8750 9486 6330

Sender's Copy

1 From Please print and press hard.

Date 4/11/12 Sender's FedEx Account Number 4108356103 NUMBER ONLY

Sender's Name Joel Petty Phone 732.570-4943

Company Weston Solutions, Inc

Address 1090 King Georges Post Rd Suite 201
City Edison State NJ ZIP 08837

2 Your Internal Billing Reference
First 24 characters will appear on invoice. 2040100749 NYL 024-5233

3 To

Recipient's Name John Birri Phone 732.321-6707

Company U.S. Environmental Protection Agency - DESA

Address 2890 Woodbridge Ave Bldg 209
We cannot deliver to R.F.D. routes or P.O. ZIP codes. MS-230
Address Edison State NJ ZIP 08837

Use the line for the 1000 location address or for continuation of your shipping address.

4a Express Package Service *To most locations.

☒ FedEx Priority Overnight Next business morning.* Priority shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available.

☐ FedEx 2Day Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Express Saver Third business day.* Saturday Delivery NOT available.

4b Express Freight Service **To most locations. Packages over 150 lbs.

☐ FedEx 1Day Freight Next business day.** Priority shipments will be delivered on Monday unless SATURDAY Delivery is selected. CALL 1.800.332.8807

☐ FedEx 2Day Freight Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx 3Day Freight Third business day.** Saturday Delivery NOT available.

5 Packaging Declared value limit \$500.

☐ FedEx Envelope* ☐ FedEx Pak* Includes FedEx Small Pak and FedEx Large Pak.

☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 2Day Freight.

☐ No Signature Required Package may be left without obtaining a signature for delivery.

☒ Direct Signature Signature at recipient's address. Run sign for delivery. Fee applies.

☐ Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 2 UN 1845 ☐ Cargo Aircraft Only

7 Payment \$20 fee.

Sender's Acct. No. in Section 1 will be billed. ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check

FedEx Acct. No. 4108356103 Exp. Date

Total Packages 1 Total Weight 6L Total Declared Value*

*Our liability is limited to \$100 unless you declare a higher value. See back for details. By entering this bill you agree to the stated conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

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USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8D3	RB-041212	Rinsate Blank	1002	CLP TCL Volatiles	Deionized Water	4/12/2012	14:30	3	40 ml VOA	HCl pH<2	N
	BA8D3	RB-041212	Rinsate Blank	1003	CLP TCL Semivolatiles	Deionized Water	4/12/2012	14:30	2	1 liter amber	4 C	N
	BA8D3	RB-041212	Rinsate Blank	1004	CLP TCL Aroclors	Deionized Water	4/12/2012	14:30	2	1 liter amber	4 C	N
	BA8E5	SW-008-001	F1	1056	CLP TCL Volatiles	Surface Water	4/12/2012	09:00	3	40 ml VOA	HCl pH<2	N
	BA8E5	SW-008-001	F1	1057	CLP TCL Semivolatiles	Surface Water	4/12/2012	09:00	2	1 liter amber	4 C	N
	BA8E5	SW-008-001	F1	1058	CLP TCL Aroclors	Surface Water	4/12/2012	09:00	2	1 liter amber	4 C	N
	BA8E6	SW-009-001	C4	1061	CLP TCL Volatiles	Surface Water	4/12/2012	09:05	3	40 ml VOA	HCl pH<2	N
	BA8E6	SW-009-001	C4	1062	CLP TCL Semivolatiles	Surface Water	4/12/2012	09:05	2	1 liter amber	4 C	N
	BA8E6	SW-009-001	C4	1063	CLP TCL Aroclors	Surface Water	4/12/2012	09:05	2	1 liter amber	4 C	N
	BA8E7	PW-009-06-001	C4	1066	CLP TCL Volatiles	Pore Water	4/12/2012	09:30	3	40 ml VOA	HCl pH<2	N
	BA8E7	PW-009-06-001	C4	1067	CLP TCL Semivolatiles	Pore Water	4/12/2012	09:30	2	1 liter amber	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analysis	Joel Petty	4/12/12	Fed Ex	4/12/12	2:00						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservation	MS/MS D
	BA8E7	PW-009-06-001	C4	1068	CLP TCL Aroclors	Pore Water	4/12/2012	09:30	2	1 liter amber	4 C	N
	BA8F6	SD-008-0006-001	F1	1118	CLP TCL Semivolatiles	Sediment	4/12/2012	10:00	1	8 oz Glass Jar	4 C	N
	BA8F6	SD-008-0006-001	F1	1119	CLP TCL Aroclors	Sediment	4/12/2012	10:00	1	8 oz Glass Jar	4 C	N
	BA8F6	SD-008-0006-001	F1	1120	CLP TCL Volatiles	Sediment	4/12/2012	10:00	3	Encore	4 C	N
	BA8F6	SD-008-0006-001	F1	1123	Percent Moisture	Sediment	4/12/2012	10:00	1	4 oz Glass Jar	4 C	N
	BA8F7	SD-009-0006-001	C4	1125	CLP TCL Semivolatiles	Sediment	4/12/2012	10:05	1	8 oz Glass Jar	4 C	N
	BA8F7	SD-009-0006-001	C4	1126	CLP TCL Aroclors	Sediment	4/12/2012	10:05	1	8 oz Glass Jar	4 C	N
	BA8F7	SD-009-0006-001	C4	1127	CLP TCL Volatiles	Sediment	4/12/2012	10:05	3	Encore	4 C	N
	BA8F7	SD-009-0006-001	C4	1130	Percent Moisture	Sediment	4/12/2012	10:05	1	4 oz Glass Jar	4 C	N
	BA8F8	TB-041212	Trip Blank	1131	CLP TCL Volatiles	Deionized Water	4/12/2012	11:00	3	40 ml VOA	HCl pH<2	N
	BA8F9	SW-010-001	E3	1134	CLP TCL Volatiles	Surface Water	4/12/2012	11:20	3	40 ml VOA	HCl pH<2	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/12/12	Fred G	4/12/12	2100						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analytes	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8F9	SW-010-001	E3	1135	CLP TCL Semivolatiles	Surface Water	4/12/2012	11:20	2	1 liter amber	4 C	N
	BA8F9	SW-010-001	E3	1136	CLP TCL Aroclors	Surface Water	4/12/2012	11:20	2	1 liter amber	4 C	N
	BA8G0	PW-010-06-001	E3	1139	CLP TCL Volatiles	Pore Water	4/12/2012	11:25	3	40 ml VOA	HCl pH<2	N
	BA8G0	PW-010-06-001	E3	1140	CLP TCL Semivolatiles	Pore Water	4/12/2012	11:25	2	1 liter amber	4 C	N
	BA8G0	PW-010-06-001	E3	1141	CLP TCL Aroclors	Pore Water	4/12/2012	11:25	2	1 liter amber	4 C	N
	BA8G1	PW-010-18-001	E3	1144	CLP TCL Volatiles	Pore Water	4/12/2012	11:55	3	40 ml VOA	HCl pH<2	N
	BA8G1	PW-010-18-001	E3	1145	CLP TCL Semivolatiles	Pore Water	4/12/2012	11:55	2	1 liter amber	4 C	N
	BA8G1	PW-010-18-001	E3	1146	CLP TCL Aroclors	Pore Water	4/12/2012	11:55	2	1 liter amber	4 C	N
	BA8G2	SD-010-0008-001	E3	1148	CLP TCL Semivolatiles	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	BA8G2	SD-010-0008-001	E3	1149	CLP TCL Aroclors	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	BA8G2	SD-010-0008-001	E3	1150	CLP TCL Volatiles	Sediment	4/12/2012	12:20	3	Encore	4 C	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples 9/11 analysis	Joel Petty	4/12/12	Fed Ex	4/17/12	2100						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyzes	Matrix	Collected	Sample Time	Num b Cont	Container	Preservation	MS/MS D
	BA8G2	SD-010-0008-001	E3	1153	Percent Moisture	Sediment	4/12/2012	12:20	1	4 oz Glass Jar	4 C	N
	BA8G3	SW-011-001	C3	1156	CLP TCL Volatiles	Surface Water	4/12/2012	11:55	3	40 ml VOA	HCl pH<2	N
	BA8G3	SW-011-001	C3	1157	CLP TCL Semivolatiles	Surface Water	4/12/2012	11:55	2	1 liter amber	4 C	N
	BA8G3	SW-011-001	C3	1158	CLP TCL Aroclors	Surface Water	4/12/2012	11:55	2	1 liter amber	4 C	N
	BA8G4	SD-011-0008-001	C3	1160	CLP TCL Semivolatiles	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	BA8G4	SD-011-0008-001	C3	1161	CLP TCL Aroclors	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	BA8G4	SD-011-0008-001	C3	1162	CLP TCL Volatiles	Sediment	4/12/2012	12:20	3	Encore	4 C	N
	BA8G4	SD-011-0008-001	C3	1165	Percent Moisture	Sediment	4/12/2012	12:20	1	4 oz Glass Jar	4 C	N
	BA8G5	SW-012-001	C2	1168	CLP TCL Volatiles	Surface Water	4/12/2012	12:35	3	40 ml VOA	HCl pH<2	N
	BA8G5	SW-012-001	C2	1169	CLP TCL Semivolatiles	Surface Water	4/12/2012	12:35	2	1 liter amber	4 C	N
	BA8G5	SW-012-001	C2	1170	CLP TCL Aroclors	Surface Water	4/12/2012	12:35	2	1 liter amber	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All samples all analyses	Joel Petty	4/12/12	Fed Ex	4/12/12	2:00						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8G6	SD-012-0006-001	C2	1172	CLP TCL Semivolatiles	Sediment	4/12/2012	12:55	1	8 oz Glass Jar	4 C	N
	BA8G6	SD-012-0006-001	C2	1173	CLP TCL Aroclors	Sediment	4/12/2012	12:55	1	8 oz Glass Jar	4 C	N
	BA8G6	SD-012-0006-001	C2	1174	CLP TCL Volatiles	Sediment	4/12/2012	12:55	3	Encore	4 C	N
	BA8G6	SD-012-0006-001	C2	1177	Percent Moisture	Sediment	4/12/2012	12:55	1	4 oz Glass Jar	4 C	N
	BA8G7	SW-013-001	E2	1180	CLP TCL Volatiles	Surface Water	4/12/2012	12:40	3	40 ml VOA	HCl pH<2	N
	BA8G7	SW-013-001	E2	1181	CLP TCL Semivolatiles	Surface Water	4/12/2012	12:40	2	1 liter amber	4 C	N
	BA8G7	SW-013-001	E2	1182	CLP TCL Aroclors	Surface Water	4/12/2012	12:40	2	1 liter amber	4 C	N
	BA8G8	SD-013-0006-001	E2	1184	CLP TCL Semivolatiles	Sediment	4/12/2012	13:00	1	8 oz Glass Jar	4 C	N
	BA8G8	SD-013-0006-001	E2	1185	CLP TCL Aroclors	Sediment	4/12/2012	13:00	1	8 oz Glass Jar	4 C	N
	BA8G8	SD-013-0006-001	E2	1186	CLP TCL Volatiles	Sediment	4/12/2012	13:00	3	Encore	4 C	N
	BA8G8	SD-013-0006-001	E2	1189	Percent Moisture	Sediment	4/12/2012	13:00	1	4 oz Glass Jar	4 C	N

Special Instructions:

 SAMPLES TRANSFERRED FROM
 CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples analyzed	Joel Petty	4/12/12	Fed Ex	4/12/12	2100						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8G9	SD-014-0006-001	E1	1191	CLP TCL Semivolatiles	Sediment	4/12/2012	15:00	1	8 oz Glass Jar	4 C	N
	BA8G9	SD-014-0006-001	E1	1192	CLP TCL Aroclors	Sediment	4/12/2012	15:00	1	8 oz Glass Jar	4 C	N
	BA8G9	SD-014-0006-001	E1	1193	CLP TCL Volatiles	Sediment	4/12/2012	15:00	3	Encore	4 C	N
	BA8G9	SD-014-0006-001	E1	1196	Percent Moisture	Sediment	4/12/2012	15:00	1	4 oz Glass Jar	4 C	N
	BA8H0	SD-015-0006-001	C1	1198	CLP TCL Semivolatiles	Sediment	4/12/2012	16:30	1	8 oz Glass Jar	4 C	N
	BA8H0	SD-015-0006-001	C1	1199	CLP TCL Aroclors	Sediment	4/12/2012	16:30	1	8 oz Glass Jar	4 C	N
	BA8H0	SD-015-0006-001	C1	1200	CLP TCL Volatiles	Sediment	4/12/2012	16:30	3	Encore	4 C	N
	BA8H0	SD-015-0006-001	C1	1203	Percent Moisture	Sediment	4/12/2012	16:30	1	4 oz Glass Jar	4 C	N
	BA8H1	SD-016-0006-001	D3	1205	CLP TCL Semivolatiles	Sediment	4/12/2012	14:55	1	8 oz Glass Jar	4 C	N
	BA8H1	SD-016-0006-001	D3	1206	CLP TCL Aroclors	Sediment	4/12/2012	14:55	1	8 oz Glass Jar	4 C	N
	BA8H1	SD-016-0006-001	D3	1207	CLP TCL Volatiles	Sediment	4/12/2012	14:55	3	Encore	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/12/12	Fed Ex	4/12/12	2100						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8H1	SD-016-0006-001	D3	1210	Percent Moisture	Sediment	4/12/2012	14:55	1	4 oz Glass Jar	4 C	N
	BA8H2	SD-017-0006-001	D2	1212	CLP TCL Semivolatiles	Sediment	4/12/2012	15:55	1	8 oz Glass Jar	4 C	N
	BA8H2	SD-017-0006-001	D2	1213	CLP TCL Aroclors	Sediment	4/12/2012	15:55	1	8 oz Glass Jar	4 C	N
	BA8H2	SD-017-0006-001	D2	1214	CLP TCL Volatiles	Sediment	4/12/2012	15:55	3	Encore	4 C	N
	BA8H2	SD-017-0006-001	D2	1217	Percent Moisture	Sediment	4/12/2012	15:55	1	4 oz Glass Jar	4 C	N
	BA8H3	SD-018-0006-001	D1	1219	CLP TCL Semivolatiles	Sediment	4/12/2012	16:40	1	8 oz Glass Jar	4 C	N
	BA8H3	SD-018-0006-001	D1	1220	CLP TCL Aroclors	Sediment	4/12/2012	16:40	1	8 oz Glass Jar	4 C	N
	BA8H3	SD-018-0006-001	D1	1221	CLP TCL Volatiles	Sediment	4/12/2012	16:40	3	Encore	4 C	N
	BA8H3	SD-018-0006-001	D1	1224	Percent Moisture	Sediment	4/12/2012	16:40	1	4 oz Glass Jar	4 C	N
	BA8H4	SW-014-001	E1	1227	CLP TCL Volatiles	Surface Water	4/12/2012	14:40	3	40 ml VOA	HCl pH<2	N
	BA8H4	SW-014-001	E1	1228	CLP TCL Semivolatiles	Surface Water	4/12/2012	14:40	2	1 liter amber	4 C	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
<i>all samples all analyses</i>	<i>Joel Petty</i>	<i>4/12/12</i>	<i>FedEx</i>	<i>4/12/12</i>	<i>2:00</i>						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8H4	SW-014-001	E1	1229	CLP TCL Aroclors	Surface Water	4/12/2012	14:40	2	1 liter amber	4 C	N
	BA8H5	SW-015-001	C1	1232	CLP TCL Volatiles	Surface Water	4/12/2012	16:10	3	40 ml VOA	HCl pH<2	N
	BA8H5	SW-015-001	C1	1233	CLP TCL Semivolatiles	Surface Water	4/12/2012	16:10	2	1 liter amber	4 C	N
	BA8H5	SW-015-001	C1	1234	CLP TCL Aroclors	Surface Water	4/12/2012	16:10	2	1 liter amber	4 C	N
	BA8H6	SW-016-001	D3	1237	CLP TCL Volatiles	Surface Water	4/12/2012	14:50	3	40 ml VOA	HCl pH<2	N
	BA8H6	SW-016-001	D3	1238	CLP TCL Semivolatiles	Surface Water	4/12/2012	14:50	2	1 liter amber	4 C	N
	BA8H6	SW-016-001	D3	1239	CLP TCL Aroclors	Surface Water	4/12/2012	14:50	2	1 liter amber	4 C	N
	BA8H7	SW-017-001	D2	1242	CLP TCL Volatiles	Surface Water	4/12/2012	15:45	3	40 ml VOA	HCl pH<2	N
	BA8H7	SW-017-001	D2	1243	CLP TCL Semivolatiles	Surface Water	4/12/2012	15:45	2	1 liter amber	4 C	N
	BA8H7	SW-017-001	D2	1244	CLP TCL Aroclors	Surface Water	4/12/2012	15:45	2	1 liter amber	4 C	N
	BA8H8	SW-018-001	D1	1247	CLP TCL Volatiles	Surface Water	4/12/2012	16:30	3	40 ml VOA	HCl pH<2	N

Special instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/12/12	FedEx	4/12/12	2100						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8H8	SW-018-001	D1	1248	CLP TCL Semivolatiles	Surface Water	4/12/2012	16:30	2	1 liter amber	4 C	N
	BA8H8	SW-018-001	D1	1249	CLP TCL Aroclors	Surface Water	4/12/2012	16:30	2	1 liter amber	4 C	N
	BA8H9	SD-019-0008-001	GSR-MID	1251	CLP TCL Semivolatiles	Sediment	4/12/2012	17:50	1	8 oz Glass Jar	4 C	N
	BA8H9	SD-019-0008-001	GSR-MID	1252	CLP TCL Aroclors	Sediment	4/12/2012	17:50	1	8 oz Glass Jar	4 C	N
	BA8H9	SD-019-0008-001	GSR-MID	1253	CLP TCL Volatiles	Sediment	4/12/2012	17:50	3	Encore	4 C	N
	BA8H9	SD-019-0008-001	GSR-MID	1256	Percent Moisture	Sediment	4/12/2012	17:50	1	4 oz Glass Jar	4 C	N
	BA8J0	SW-019-001	GSR-MID	1259	CLP TCL Volatiles	Surface Water	4/12/2012	17:30	3	40 ml VOA	HCl pH<2	N
	BA8J0	SW-019-001	GSR-MID	1260	CLP TCL Semivolatiles	Surface Water	4/12/2012	17:30	2	1 liter amber	4 C	N
	BA8J0	SW-019-001	GSR-MID	1261	CLP TCL Aroclors	Surface Water	4/12/2012	17:30	2	1 liter amber	4 C	N
	BA8J1	PW-019-06-001	GSR-MID	1264	CLP TCL Volatiles	Pore Water	4/12/2012	17:40	3	40 ml VOA	HCl pH<2	N
	BA8J1	PW-019-06-001	GSR-MID	1265	CLP TCL Semivolatiles	Pore Water	4/12/2012	17:40	2	1 liter amber	4 C	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All samples analyzed	Joel Petty	4/12/12	Fed Ex	4/12/12	2:00						

USEPA

Date Shipped: 4/12/2012

Carrier Name: FedEx

Airbill No: 87417839

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

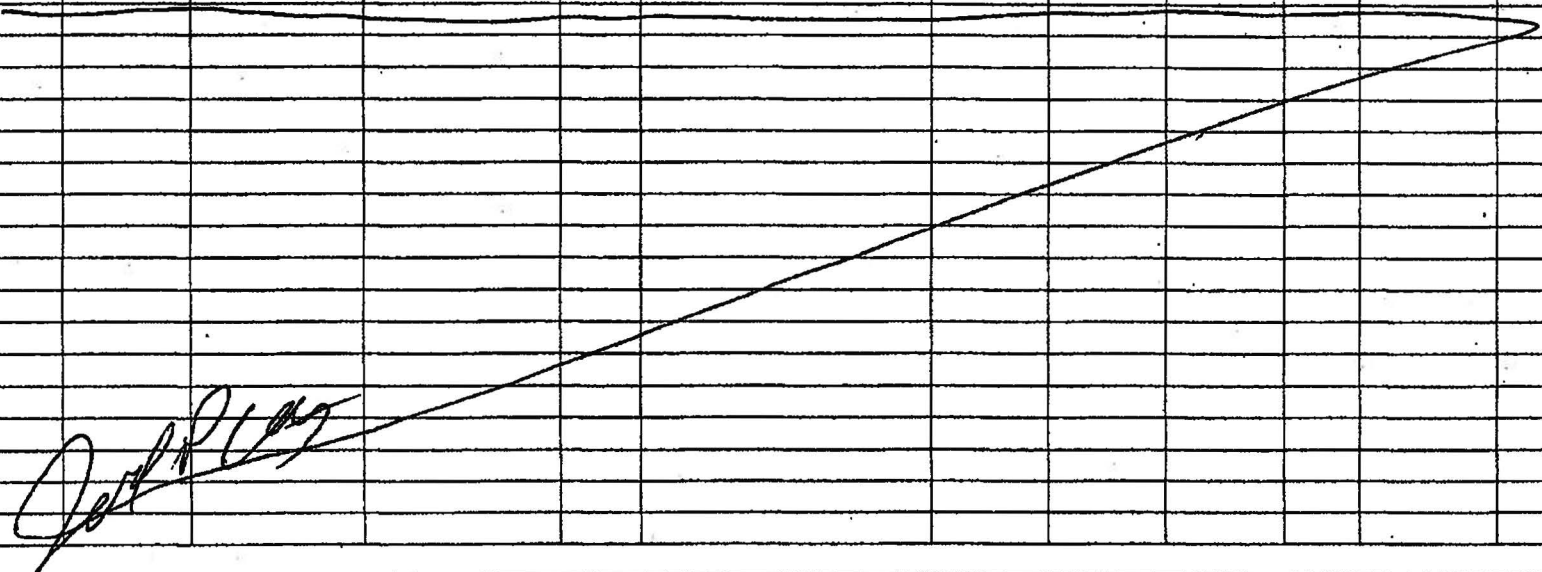
Contact Phone: 732-570-4943

No: 2-041212-184603-0009

Cooler #: 11

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8J1	PW-019-06-001	GSR-MID	1266	CLP TCL Aroclors	Pore Water	4/12/2012	17:40	2	1 liter amber	4 C	N
												

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/12/12	Joel Petty	4/12/12	21:00						

1 From Please print and press hard.

Date 4/12/12 Sender's FedEx Account Number 402356103
 Sender's Name Joel Petty Phone 7321570-4943
 Company Weston Solutions, Inc.
 Address 1090 King Georges Post Rd Suite 201
 City Edison State NJ ZIP 08837

2 Your Internal Billing Reference

20401-135004-5233

To Recipient's Name Chris Bonner Phone 601264-2854

Company Bonner Analytical Testing Company

Address 2703 Oak Grove Road
 We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address Hattiesburg State MS ZIP 39402
 Use this line for the HOLD location address or for continuation of your shipping address.

City Hattiesburg State MS ZIP 39402



4a Express Package Service

☒ FedEx Priority Overnight ☐ FedEx Standard Overnight ☐ FedEx First Overnight
 Next business day* Monday through Friday. Saturday Delivery NOT available. ☐ FedEx 2Day ☐ FedEx Express Saver
 Second business day* Thursday through Friday. Saturday Delivery NOT available.

4b Express Freight Service

☐ FedEx 1Day Freight ☐ FedEx 2Day Freight ☐ FedEx 3Day Freight
 Next business day* Monday through Friday. Saturday Delivery NOT available. ☐ FedEx 1Day Freight
 Next business day* Monday through Friday. Saturday Delivery NOT available. ☐ FedEx 2Day Freight
 Second business day* Thursday through Friday. Saturday Delivery NOT available. ☐ FedEx 3Day Freight
 Third business day* Saturday Delivery NOT available.

5 Packaging

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery ☐ No Signature Required ☒ Direct Signature ☐ Indirect Signature
 NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight. Package may be left without obtaining a signature for delivery. Someone at recipient's address may sign for delivery. For residential deliveries only. For applicable.

Does this shipment contain dangerous goods?

☒ No ☐ Yes ☐ Yes ☐ Dry Ice ☐ Cargo Aircraft Only
 One box must be checked. For per attached Shipper's Declaration. Shipper's Declaration required. Dry Ice, 6, UN 1845

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.
☐ Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check
 FedEx Acct. No. 402356103 Exp. Date

Total Packages 11 Total Weight NDW Total Declared Value NDW

Your liability is limited to \$500 unless you declare a higher value. By using this Airbill you agree to the payment conditions on the back of this Airbill and to the current FedEx Service Guide, including terms that limit our liability.

606

USEPA

Date Shipped: 4/13/2012

Carrier Name: FedEx

Airbill No: 874178390191

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041312-155136-0011

Cooler #: 6

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8J2	SD-020-0006-001	B3	1268	CLP TCL Semivolatiles	Sediment	4/13/2012	09:30	1	8 oz Glass Jar	4 C	N
	BA8J2	SD-020-0006-001	B3	1269	CLP TCL Aroclors	Sediment	4/13/2012	09:30	2	8 oz Glass Jar	4 C	Y
	BA8J2	SD-020-0006-001	B3	1270	CLP TCL Volatiles	Sediment	4/13/2012	09:30	3	Encore	4 C	N
	BA8J2	SD-020-0006-001	B3	1273	Percent Moisture	Sediment	4/13/2012	09:30	1	4 oz Glass Jar	4 C	N
	BA8J3	SW-020-001	B3	1276	CLP TCL Volatiles	Surface Water	4/13/2012	08:30	3	40 ml VOA	HCl pH<2	N
	BA8J3	SW-020-001	B3	1277	CLP TCL Semivolatiles	Surface Water	4/13/2012	08:30	2	1 liter amber	4 C	N
	BA8J3	SW-020-001	B3	1278	CLP TCL Aroclors	Surface Water	4/13/2012	08:30	6	1 liter amber	4 C	Y
	BA8J4	PW-020-06-001	B3	1281	CLP TCL Volatiles	Pore Water	4/13/2012	08:50	3	40 ml VOA	HCl pH<2	N
	BA8J4	PW-020-06-001	B3	1282	CLP TCL Semivolatiles	Pore Water	4/13/2012	08:50	2	1 liter amber	4 C	N
	BA8J4	PW-020-06-001	B3	1283	CLP TCL Aroclors	Pore Water	4/13/2012	08:50	2	1 liter amber	4 C	N
	BA8J5	TB-041312	Trip Blank	1284	CLP TCL Volatiles	Deionized Water	4/13/2012	09:45	3	40 ml VOA	HCl pH<2	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All samples all analyses	Joel Petty	4/13/12	FedEx	4/13/12	1900						

USEPA

Date Shipped: 4/13/2012

Carrier Name: FedEx

Airbill No: 874178390191

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041312-155136-0011

Cooler #: 6

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8J6	RB-041312	Rinsate Blank	1287	CLP TCL Volatiles	Deionized Water	4/13/2012	11:15	3	40 ml VOA	HCl pH<2	N
	BA8J6	RB-041312	Rinsate Blank	1288	CLP TCL Semivolatiles	Deionized Water	4/13/2012	11:15	2	1 liter amber	4 C	N
	BA8J6	RB-041312	Rinsate Blank	1289	CLP TCL Aroclors	Deionized Water	4/13/2012	11:15	2	1 liter amber	4 C	N
	BA8J7	SW-021-001	A2	1292	CLP TCL Volatiles	Surface Water	4/13/2012	10:20	3	40 ml VOA	HCl pH<2	N
	BA8J7	SW-021-001	A2	1293	CLP TCL Semivolatiles	Surface Water	4/13/2012	10:20	2	1 liter amber	4 C	N
	BA8J7	SW-021-001	A2	1294	CLP TCL Aroclors	Surface Water	4/13/2012	10:20	2	1 liter amber	4 C	N
	BA8J8	SW-021-002	A2	1287	CLP TCL Volatiles	Surface Water	4/13/2012	10:20	3	40 ml VOA	HCl pH<2	N
	BA8J8	SW-021-002	A2	1298	CLP TCL Semivolatiles	Surface Water	4/13/2012	10:20	2	1 liter amber	4 C	N
	BA8J8	SW-021-002	A2	1299	CLP TCL Aroclors	Surface Water	4/13/2012	10:20	2	1 liter amber	4 C	N
	BA8J9	PW-021-06-001	A2	1302	CLP TCL Volatiles	Pore Water	4/13/2012	10:45	3	40 ml VOA	HCl pH<2	N
	BA8J9	PW-021-06-001	A2	1303	CLP TCL Semivolatiles	Pore Water	4/13/2012	10:45	2	1 liter amber	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/13/12	FedEx	4/13/12	1900						

USEPA

DateShipped: 4/13/2012

CarrierName: FedEx

AirbillNo: 874178390191

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041312-155136-0011

Cooler #: 6

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8J9	PW-021-006-001	A2	1304	CLP TCL Aroclors	Pore Water	4/13/2012	10:45	2	1 liter amber	4 C	N
	BA8K0	SD-021-0006-001	A2	1306	CLP TCL Semivolatiles	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K0	SD-021-0006-001	A2	1307	CLP TCL Aroclors	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K0	SD-021-0006-001	A2	1308	CLP TCL Volatiles	Sediment	4/13/2012	11:20	3	Encore	4 C	N
	BA8K0	SD-021-0006-001	A2	1311	Percent Moisture	Sediment	4/13/2012	11:20	1	16 oz Poly Bottle	4 C	N
	BA8K1	SD-021-0006-002	A2	1313	CLP TCL Semivolatiles	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K1	SD-021-0006-002	A2	1314	CLP TCL Aroclors	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K1	SD-021-0006-002	A2	1315	CLP TCL Volatiles	Sediment	4/13/2012	11:20	3	Encore	4 C	N
	BA8K1	SD-021-0006-002	A2	1316	Percent Moisture	Sediment	4/13/2012	11:20	1	4 oz Glass Jar	4 C	N
	BA8K2	SD-022-0006-001	B2	1318	CLP TCL Semivolatiles	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K2	SD-022-0006-001	B2	1319	CLP TCL Aroclors	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/13/12	FedEx	4/13/12	1900						

USEPA

Date Shipped: 4/13/2012

Carrier Name: FedEx

Airbill No: 874178390191

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041312-155136-0011

Cooler #: 6

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8K2	SD-022-0006-001	B2	1320	CLP TCL Volatiles	Sediment	4/13/2012	11:20	3	Encore	4 C	N
	BA8K2	SD-022-0006-001	B2	1323	Percent Moisture	Sediment	4/13/2012	11:20	1	16 oz Poly Bottle	4 C	N
	BA8K3	SW-022-001	B2	1326	CLP TCL Volatiles	Surface Water	4/13/2012	10:50	3	40 ml VOA	HCl pH<2	N
	BA8K3	SW-022-001	B2	1327	CLP TCL Semivolatiles	Surface Water	4/13/2012	10:50	2	1 liter amber	4 C	N
	BA8K3	SW-022-001	B2	1328	CLP TCL Aroclors	Surface Water	4/13/2012	10:50	2	1 liter amber	4 C	N
	BA8K4	SW-023-001	B1	1331	CLP TCL Volatiles	Surface Water	4/13/2012	14:20	3	40 ml VOA	HCl pH<2	N
	BA8K4	SW-023-001	B1	1332	CLP TCL Semivolatiles	Surface Water	4/13/2012	14:20	2	1 liter amber	4 C	N
	BA8K4	SW-023-001	B1	1333	CLP TCL Aroclors	Surface Water	4/13/2012	14:20	2	1 liter amber	4 C	N
	BA8K5	SD-023-0006-001	B1	1335	CLP TCL Semivolatiles	Sediment	4/13/2012	14:40	1	8 oz Glass Jar	4 C	N
	BA8K5	SD-023-0006-001	B1	1336	CLP TCL Aroclors	Sediment	4/13/2012	14:40	1	8 oz Glass Jar	4 C	N
	BA8K5	SD-023-0006-001	B1	1337	CLP TCL Volatiles	Sediment	4/13/2012	14:40	3	Encore	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/13/12	Fed Ex	4/13/12	1900						

USEPA

Date Shipped: 4/13/2012

Carrier Name: FedEx

Airbill No: 874178390191

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

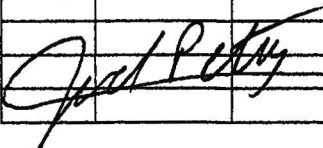
Contact Phone: 732-570-4943

No: 2-041312-155136-0011

Cooler #: 6

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8K5	SD-023-0006-001	B1	1340	Percent Moisture	Sediment	4/13/2012	14:40	1	16 oz Poly Bottle	4 C	N
	BA8K6	SD-024-0006-001	B1 A1 (SP)	1342	CLP TCL Semivolatiles	Sediment	4/13/2012	14:30	1	8 oz Glass Jar	4 C	N
	BA8K6	SD-024-0006-001	B1 A1 (SP)	1343	CLP TCL Aroclors	Sediment	4/13/2012	14:30	1	8 oz Glass Jar	4 C	N
	BA8K6	SD-024-0006-001	B1 A1 (SP)	1344	CLP TCL Volatiles	Sediment	4/13/2012	14:30	3	Encore	4 C	N
	BA8K6	SD-024-0006-001	B1 A1 (SP)	1347	Percent Moisture	Sediment	4/13/2012	14:30	1	16 oz Poly Bottle	4 C	N
	BA8K7	SW-024-001	A1	1350	CLP TCL Volatiles	Surface Water	4/13/2012	14:15	3	40 ml VOA	HCl pH<2	N
	BA8K7	SW-024-001	A1	1351	CLP TCL Semivolatiles	Surface Water	4/13/2012	14:15	2	1 liter amber	4 C	N
	BA8K7	SW-024-001	A1	1352	CLP TCL Aroclors	Surface Water	4/13/2012	14:15	2	1 liter amber	4 C	N
												

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/13/12	FedEx	4/13/12	1900						

1 From Please print and press hard.

Date 4/13/12 Sender's FedEx Account Number 402356103 (Sender's FedEx Account Number ONLY)
 Sender's Name Joel Petty Phone 732.570-4943
 Company Weston Solutions, Inc.
 Address 1090 King Georges Post Rd Suite 201
 City Edison State NJ ZIP 08837

2 Your Internal Billing Reference
 First 24 characters will appear on invoice.

2040101350000

3 To

Recipient's Name Bob Meierer Phone 919.379-4100
 Company Liberty Analytical Corporation
 Address 501 Madison Ave
 We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room
 Address 1
 Use this line for the HOLD location address or for coordination of your shipping address.
 City Cary State NC ZIP 27513

☐ HOLD Weekday
 FedEx location address
 REQUIRED. NOT available for
 FedEx First Overnight.

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 FedEx 2Day to select locations.

4a Express Package Service

☒ FedEx Priority Overnight
 Next business morning. * Today
 shipments will be delivered on Monday
 unless SATURDAY Delivery is selected.
☐ FedEx Standard Overnight
 Next business afternoon. *
 Saturday Delivery NOT available.
☐ FedEx First Overnight
 Earliest next business morning
 delivery to select locations. *
☐ FedEx 2Day
 Second business day. * Thursday
 shipments will be delivered on Monday
 unless SATURDAY Delivery is selected.
☐ FedEx Express Saver
 Third business day. *
 Saturday Delivery NOT available.

4b Express Freight Service

☐ FedEx 1Day Freight
 Next business day. ** Friday shipments will
 be delivered on Monday unless SATURDAY
 Delivery is selected. CALL 1.800.332.0807
 FedEx 1Day Freight Booking No.
☐ FedEx 2Day Freight
 Second business day. * Thursday shipments will be delivered
 on Monday unless SATURDAY Delivery is selected. ☐ FedEx 3Day Freight
 Third business day. ** Saturday Delivery NOT available.

5 Packaging

Declared value limit \$500.
☐ FedEx Envelope* ☐ FedEx Pak*
 Includes FedEx Small Pak and
 FedEx Large Pak. ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☒ SATURDAY Delivery
 NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight.
☐ No Signature Required
 Packages may be left without
 obtaining a signature for delivery. ☒ Direct Signature
 Someone at recipient's address
 must sign for delivery. Fee applies.
☐ Indirect Signature
 If no one is available at recipient's
 address, someone at a neighboring
 address may sign for delivery. For
 residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.
☒ No ☐ Yes
 As per attached Shipper's Declaration. ☐ Yes
 Shipper's Declaration
 not required. ☐ Dry Ice
 Dry Ice, 3 UN 1845 kg
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging
 or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment Bill to:

Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check
 Enter FedEx Acct. No. or Credit Card No. below.
 FedEx Acct. No. 402356103 Exp. Date

Total Packages 6 Total Weight 3.23 lbs. Total Declared Value \$ 00

Your liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

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606

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390180

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-154804-0012

Cooler #: 3

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8K8	SD-025-0006-001	GSR-MID-2	1354	CLP TCL Semivolatiles	Sediment	4/16/2012	11:30	1	8 oz Glass Jar	4 C	N
	BA8K8	SD-025-0006-001	GSR-MID-2	1355	CLP TCL Aroclors	Sediment	4/16/2012	11:30	1	8 oz Glass Jar	4 C	N
	BA8K8	SD-025-0006-001	GSR-MID-2	1356	CLP TCL Volatiles	Sediment	4/16/2012	11:30	3	Encore	4 C	N
	BA8K8	SD-025-0006-001	GSR-MID-2	1359	Percent Moisture	Sediment	4/16/2012	11:30	1	16 oz Poly Bottle	4 C	N
	BA8K9	SW-025-001	GSR-MID-2	1362	CLP TCL Volatiles	Surface Water	4/16/2012	10:20	3	40 ml VOA	HCl pH<2	N
	BA8K9	SW-025-001	GSR-MID-2	1363	CLP TCL Semivolatiles	Surface Water	4/16/2012	10:20	2	1 liter amber	4 C	N
	BA8K9	SW-025-001	GSR-MID-2	1364	CLP TCL Aroclors	Surface Water	4/16/2012	10:20	2	1 liter amber	4 C	N
	BA8L0	PW-025-06-001	GSR-MID-2	1367	CLP TCL Volatiles	Pore Water	4/16/2012	10:45	3	40 ml VOA	HCl pH<2	N
	BA8L0	PW-025-06-001	GSR-MID-2	1368	CLP TCL Semivolatiles	Pore Water	4/16/2012	10:45	2	1 liter amber	4 C	N
	BA8L0	PW-025-06-001	GSR-MID-2	1369	CLP TCL Aroclors	Pore Water	4/16/2012	10:45	2	1 liter amber	4 C	N
	BA8L1	PW-025-18-001	GSR-MID-2	1370	CLP TCL Volatiles	Pore Water	4/16/2012	11:20	3	40 ml VOA	HCl pH<2	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/16/12	Fed Ex	4/16/12	1830						

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390180

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-154604-0012

Cooler #: 3

Lab: Liberty Analytical Corporation

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8L2	TB-041612	Trip Blank	1371	CLP TCL Volatiles	Deionized Water	4/13/2012	11:00	3	40 ml VOA	HCl pH<2	N
	BA8L3	RB-041612	Rinse Blank	1374	CLP TCL Volatiles	Deionized Water	4/16/2012	11:45	3	40 ml VOA	HCl pH<2	N
	BA8L3	RB-041612	Rinse Blank	1375	CLP TCL Semivolatiles	Deionized Water	4/16/2012	11:45	2	1 liter amber	4 C	N
	BA8L3	RB-041612	Rinse Blank	1376	CLP TCL Aroclors	Deionized Water	4/16/2012	11:45	2	1 liter amber	4 C	N
	BA8L4	SD-026-0006-001	GSR-BKG-1	1378	CLP TCL Semivolatiles	Sediment	4/16/2012	13:40	1	8 oz Glass Jar	4 C	N
	BA8L4	SD-026-0006-001	GSR-BKG-1	1379	CLP TCL Aroclors	Sediment	4/16/2012	13:40	1	8 oz Glass Jar	4 C	N
	BA8L4	SD-026-0006-001	GSR-BKG-1	1380	CLP TCL Volatiles	Sediment	4/16/2012	13:40	3	Encore	4 C	N
	BA8L4	SD-026-0006-001	GSR-BKG-1	1383	Percent Moisture	Sediment	4/16/2012	13:40	1	16 oz Poly Bottle	4 C	N
	BA8L5	SD-027-0006-001	GSR-BKG-2	1385	CLP TCL Semivolatiles	Sediment	4/16/2012	14:25	1	8 oz Glass Jar	4 C	N
	BA8L5	SD-027-0006-001	GSR-BKG-2	1386	CLP TCL Aroclors	Sediment	4/16/2012	14:25	1	8 oz Glass Jar	4 C	N
	BA8L5	SD-027-0006-001	GSR-BKG-2	1387	CLP TCL Volatiles	Sediment	4/16/2012	14:25	3	Encore	4 C	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/16/12	Fed Ex	4/16/12	1830						

Contact Phone: 732-570-4943

Case #: 42434

Paul R. Petty

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

[illegible]

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02Pg

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8L6 ^(JP)	SW-028-001	GSR-BKG-1	1391	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/16/2012	13:25	1	1 L poly	HNO3 pH<2	N
	MBA8D3	RB-041212	Rinsate Blank	1000	CLP TAL Total Metals + Hg/ICP-AES	Deionized Water	4/12/2012	14:30	1	1 L poly	HNO3 pH<2	N
	MBA8D3	RB-041212	Rinsate Blank	1001	CLP Cyanide	Deionized Water	4/12/2012	14:30	1	1 L poly	NaOH pH>12	N
	MBA8E5	SW-008-001	F1	1054	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	09:00	1	1 L poly	HNO3 pH<2	N
	MBA8E5	SW-008-001	F1	1055	CLP Cyanide	Surface Water	4/12/2012	09:00	1	1 L poly	NaOH pH>12	N
	MBA8E6	SW-009-001	C4	1059	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	09:05	1	1 L poly	HNO3 pH<2	N
	MBA8E6	SW-009-001	C4	1060	CLP Cyanide	Surface Water	4/12/2012	09:05	1	1 L poly	NaOH pH>12	N
	MBA8E7	PW-009-06-001	C4	1084	CLP TAL Total Metals + Hg/ICP-AES	Pore Water	4/12/2012	09:30	1	1 L poly	HNO3 pH<2	N
	MBA8E7	PW-009-06-001	C4	1085	CLP Cyanide	Pore Water	4/12/2012	09:30	1	1 L poly	NaOH pH>12	N
	MBA8F6	SD-008-0008-001	F1	1117	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	10:00	1	8 oz Glass Jar	4 C	N
	MBA8F7	SD-009-0008-001	C4	1124	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	10:05	1	8 oz Glass Jar	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples analyzed	Joel Petty	4/16/12	Fed Ex	4/16/12	1830						

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8F9	SW-010-001	E3	1132	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	11:20	1	1 L poly	HNO3 pH<2	N
	MBA8F9	SW-010-001	E3	1133	CLP Cyanide	Surface Water	4/12/2012	11:20	1	1 L poly	NaOH pH>12	N
	MBA8G0	PW-010-06-001	E3	1137	CLP TAL Total Metals + Hg/ICP-AES	Pore Water	4/12/2012	11:26	1	1 L poly	HNO3 pH<2	N
	MBA8G0	PW-010-06-001	E3	1138	CLP Cyanide	Pore Water	4/12/2012	11:26	1	1 L poly	NaOH pH>12	N
	MBA8G1	PW-010-18-001	E3	1142	CLP TAL Total Metals + Hg/ICP-AES	Pore Water	4/12/2012	11:55	1	1 L poly	HNO3 pH<2	N
	MBA8G1	PW-010-18-001	E3	1143	CLP Cyanide	Pore Water	4/12/2012	11:55	1	1 L poly	NaOH pH>12	N
	MBA8G2	SD-010-0008-001	E3	1147	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	MBA8G3	SW-011-001	C3	1154	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	11:55	1	1 L poly	HNO3 pH<2	N
	MBA8G3	SW-011-001	C3	1155	CLP Cyanide	Surface Water	4/12/2012	11:55	1	1 L poly	NaOH pH>12	N
	MBA8G4	SD-011-0008-001	C3	1159	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	MBA8G5	SW-012-001	C2	1166	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	12:36	1	1 L poly	HNO3 pH<2	N

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/16/12	Fed Ex	4/16/12	1830						

USEPA

DateShipped: 4/16/2012

CarrierName: FedEx

AirbillNo: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-670-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8G5	SW-012-001	C2	1167	CLP Cyanide	Surface Water	4/12/2012	12:35	1	1 L poly	NaOH pH>12	N
	MBA8G6	SD-012-0008-001	C2	1171	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	12:55	1	8 oz Glass Jar	4 C	N
	MBA8G7	SW-013-001	E2	1178	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	12:40	1	1 L poly	HNO3 pH<2	N
	MBA8G7	SW-013-001	E2	1179	CLP Cyanide	Surface Water	4/12/2012	12:40	1	1 L poly	NaOH pH>12	N
	MBA8G8	SD-013-0008-001	E2	1183	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	13:00	1	8 oz Glass Jar	4 C	N
	MBA8G9	SD-014-0008-001	E1	1190	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	15:00	1	8 oz Glass Jar	4 C	N
	MBA8H0	SD-015-0008-001	C1	1197	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	16:30	1	8 oz Glass Jar	4 C	N
	MBA8H1	SD-016-0008-001	D3	1204	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	14:55	1	8 oz Glass Jar	4 C	N
	MBA8H2	SD-017-0008-001	D2	1211	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	15:55	1	8 oz Glass Jar	4 C	N
	MBA8H3	SD-018-0008-001	D1	1218	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	16:40	1	8 oz Glass Jar	4 C	N
	MBA8H4	SW-014-001	E1	1225	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	14:40	1	1 L poly	HNO3 pH<2	N

Special Instructions:	SAMPLES TRANSFERRED FROM										
	CHAIN OF CUSTODY #										

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/16/12	Fed Ex	4/16/12	1830						

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MSD
	MBA8H4	SW-014-001	E1	1228	CLP Cyanide	Surface Water	4/12/2012	14:40	1	1 L poly	NaOH pH>12	N
	MBA8H5	SW-016-001	C1	1230	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	16:10	1	1 L poly	HNO3 pH<2	N
	MBA8H5	SW-015-001	C1	1231	CLP Cyanide	Surface Water	4/12/2012	16:10	1	1 L poly	NaOH pH>12	N
	MBA8H6	SW-016-001	D3	1235	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	14:50	1	1 L poly	HNO3 pH<2	N
	MBA8H6	SW-016-001	D3	1236	CLP Cyanide	Surface Water	4/12/2012	14:50	1	1 L poly	NaOH pH>12	N
	MBA8H7	SW-017-001	D2	1240	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	15:45	1	1 L poly	HNO3 pH<2	N
	MBA8H7	SW-017-001	D2	1241	CLP Cyanide	Surface Water	4/12/2012	15:45	1	1 L poly	NaOH pH>12	N
	MBA8H8	SW-018-001	D1	1245	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	16:30	1	1 L poly	HNO3 pH<2	N
	MBA8H8	SW-018-001	D1	1246	CLP Cyanide	Surface Water	4/12/2012	16:30	1	1 L poly	NaOH pH>12	N
	MBA8H9	SD-019-0006-001	GSR-MID-1	1250	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/12/2012	17:50	1	8 oz Glass Jar	4 C	N
	MBA8J0	SW-019-001	GSR-MID	1257	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/12/2012	17:30	1	1 L poly	HNO3 pH<2	N

Special Instructions:	SAMPLES TRANSFERRED FROM										
	CHAIN OF CUSTODY #										

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/16/12	Fed Ex	4/16/12	1830						

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8J0	SW-019-001	GSR-MID	1258	CLP Cyanide	Surface Water	4/12/2012	17:30	1	1 L poly	NaOH pH>12	N
	MBA8J1	PW-019-06-001	GSR-MID	1262	CLP TAL Total Metals + Hg/ICP-AES	Pore Water	4/12/2012	17:40	1	1 L poly	HNO3 pH<2	N
	MBA8J1	PW-019-06-001	GSR-MID	1263	CLP Cyanide	Pore Water	4/12/2012	17:40	1	1 L poly	NaOH pH>12	N
	MBA8J2	SD-020-0006-001	B3	1267	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/13/2012	09:30	2	8 oz Glass Jar	4 C	Y
	MBA8J3	SW-020-001	B3	1274	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/13/2012	08:30	3	1 L poly	HNO3 pH<2	Y
	MBA8J3	SW-020-001	B3	1275	CLP Cyanide	Surface Water	4/13/2012	08:30	3	1 L poly	NaOH pH>12	Y
	MBA8J4	PW-020-06-001	B3	1279	CLP TAL Total Metals + Hg/ICP-AES	Pore Water	4/13/2012	08:50	1	1 L poly	HNO3 pH<2	N
	MBA8J4	PW-020-06-001	B3	1280	CLP Cyanide	Pore Water	4/13/2012	08:50	1	1 L poly	NaOH pH>12	N
	MBA8J6	RB-041312	Rinse Blank	1285	CLP TAL Total Metals + Hg/ICP-AES	Deionized Water	4/13/2012	11:15	1	1 L poly	HNO3 pH<2	N
	MBA8J6	RB-041312	Rinse Blank	1286	CLP Cyanide	Deionized Water	4/13/2012	11:15	1	1 L poly	NaOH pH>12	N
	MBA8J7	SW-021-001	A2	1290	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/13/2012	10:20	1	1 L poly	HNO3 pH<2	N

Special Instructions:	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #
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Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
<i>all samples all analyses</i>	<i>Joel Petty</i>	<i>4/16/12</i>	<i>FedEx</i>	<i>4/16/12</i>	<i>1830</i>						

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8J7	SW-021-001	A2	1294	CLP Cyanide	Surface Water	4/13/2012	10:20	1	1 L poly	NaOH pH>12	N
	MBA8J8	SW-021-002	A2	1295	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/13/2012	10:20	1	1 L poly	HNO3 pH<2	N
	MBA8J8	SW-021-002	A2	1296	CLP Cyanide	Surface Water	4/13/2012	10:20	1	1 L poly	NaOH pH>12	N
	MBA8J9	PW-021-06-001	A2	1300	CLP TAL Total Metals + Hg/ICP-AES	Pore Water	4/13/2012	10:45	1	1 L poly	HNO3 pH<2	N
	MBA8J9	PW-021-06-001	A2	1301	CLP Cyanide	Pore Water	4/13/2012	10:45	1	1 L poly	NaOH pH>12	N
	MBA8K0	SD-021-0006-001	A2	1305	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	MBA8K1	SD-021-0006-002	A2	1312	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	MBA8K2	SD-022-0006-001	B2	1317	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	MBA8K3	SW-022-001	B2	1324	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/13/2012	10:50	1	1 L poly	HNO3 pH<2	N
	MBA8K3	SW-022-001	B2	1325	CLP Cyanide	Surface Water	4/13/2012	10:50	1	1 L poly	NaOH pH>12	N
	MBA8K4	SW-023-001	B1	1329	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/13/2012	14:20	1	1 L poly	HNO3 pH<2	N

Special Instructions:	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #
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Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All samples all analyses	Joel Petty	4/16/12	Joel Petty	4/16/12	1830						

USEPA

Date Shipped: 4/16/2012

Carrier Name: FedEx

Airbill No: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	MBA8K4	SW-023-001	B1	1330	CLP Cyanide	Surface Water	4/13/2012	14:20	1	1 L poly	NaOH pH>12	N
	MBA8K5	SD-023-0006-001	B1	1334	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/13/2012	14:40	1	8 oz Glass Jar	4 C	N
	MBA8K6	SD-024-0006-001	A1	1341	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/13/2012	14:30	1	8 oz Glass Jar	4 C	N
	MBA8K7	SW-024-001	A1	1348	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/13/2012	14:15	1	1 L poly	HNO3 pH<2	N
	MBA8K7	SW-024-001	A1	1349	CLP Cyanide	Surface Water	4/13/2012	14:15	1	1 L poly	NaOH pH>12	N
	MBA8K8	SD-025-0006-001	GSR-MID-2	1353	CLP TAL Total Metals + Hg + Cr/ICP-AES	Sediment	4/16/2012	11:30	1	8 oz Glass Jar	4 C	N
	MBA8K9	SW-025-001	GSR-MID-2	1360	CLP TAL Total Metals + Hg/ICP-AES	Surface Water	4/16/2012	10:20	1	1 L poly	HNO3 pH<2	N
	MBA8K9	SW-025-001	GSR-MID-2	1361	CLP Cyanide	Surface Water	4/16/2012	10:20	1	1 L poly	NaOH pH>12	N
	MBA8L0	PW-025-06-001	GSR-MID-2	1365	CLP TAL Total Metals + Hg/ICP-AES	Pore Water	4/16/2012	10:45	1	1 L poly	HNO3 pH<2	N
	MBA8L0	PW-025-06-001	GSR-MID-2	1366	CLP Cyanide	Pore Water	4/16/2012	10:45	1	1 L poly	NaOH pH>12	N
	MBA8L3	RB-041612	Rinseate Blank	1372	CLP TAL Total Metals + Hg/ICP-AES	Deionized Water	4/16/2012	11:45	1	1 L poly	HNO3 pH<2	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples analyzed	Joel Petty	4/16/12	FedEx	4/16/12	1830						

DateShipped: 4/16/2012
CarrierName: FedEx
AirBillNo: 874178390217

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-183651-0008

Cooler #: 7

Lab: Bonner Analytical Testing Company

Case #: 42434

[illegible]

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time
all samples all analyses	Jed Pety	4/16/12	Fred E.	4/16/12	1830

FedEx US Airbill

Express

FedEx Tracking Number

8741 7839 0180

1 From Please print and press hard.

Date 4/16/12 Sender's FedEx Account Number 402356103 PRINT NUMBER ONLY

Sender's Name Joel Petty Phone 732 570-4943

Company Weston Solutions, Inc.

Address 1090 King Georges Post Rd Suite 201

City Edison State NJ ZIP 08837

2 Your Internal Billing Reference

20401-135-004-5233

3 To

Recipient's Name Bob Meier Phone 919 379-4100

Company Liberty Analytical Corporation

Address 501 Madison Ave

Address Cary State NC ZIP 27513



Ship on the go at mobile.fedex.com

FedEx US Airbill

Express

FedEx Tracking Number

8741 7839 0217

1 From Please print and press hard.

Date 4/16/12 Sender's FedEx Account Number 402356103 PRINT NUMBER ONLY

Sender's Name Joel Petty Phone 732 570-4943

Company Weston Solutions, Inc.

Address 1090 King Georges Post Rd Suite 201

City Edison State NJ ZIP 08837

2 Your Internal Billing Reference

20401-135-004-5233

3 To

Recipient's Name Chris Bonner Phone 601 264-2854

Company Bonner Analytical Testing Company

Address 2703 Oak Grove Road

Address Hattiesburg State MS ZIP 39402



Ship on the go at mobile.fedex.com

Sender's Copy

4a Express Package Service

☒ FedEx Priority Overnight Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available. ☐ FedEx First Overnight Earliest next business morning delivery to select locations. ☐ FedEx 2Day Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ FedEx Express Saver Third business day. Saturday Delivery NOT available.

4b Express Freight Service

☐ FedEx 1Day Freight Next business day. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ FedEx 2Day Freight Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. ☐ FedEx 3Day Freight Third business day. Saturday Delivery NOT available. CALL 1.800.332.0807

5 Packaging

☐ FedEx Envelope ☐ FedEx Pak Includes FedEx Small Pak and FedEx Large Pak. ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight. ☐ No Signature Required Package may be left without obtaining a signature for delivery. ☒ Direct Signature Successor at recipient's address may sign for delivery. Fee applies. ☐ Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked. ☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 4 UN 1845 x kg ☐ Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment Bill to:

☐ Sender I will be billed. ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check Enter FedEx Acct. No. or Credit Card No. below: 402356103 Exp. Date

Total Packages 3 Total Weight 250 Total Declared Value 0

Your liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms and conditions.

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Sender's Copy

4a Express Package Service

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USEPA

Date Shipped: 4/16/2012

Carrier Name: Hand Delivery

Airbill No: NA

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041312-184715-0010

Cooler #: 2

Lab: DEBA

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8F6	SD-008-0008-001	F1	1121	Total Organic Carbon	Sediment	4/12/2012	10:00	1	8 oz Glass Jar	4 C	N
	BA8F6	SD-008-0008-001	F1	1122	Grain Size	Sediment	4/12/2012	10:00	1	16 oz Poly Bottle	4 C	N
	BA8F7	SD-009-0008-001	C4	1128	Total Organic Carbon	Sediment	4/12/2012	10:05	1	8 oz Glass Jar	4 C	N
	BA8F7	SD-009-0008-001	C4	1129	Grain Size	Sediment	4/12/2012	10:05	1	16 oz Poly Bottle	4 C	N
	BA8G2	SD-010-0008-001	E3	1151	Total Organic Carbon	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	BA8G2	SD-010-0008-001	E3	1152	Grain Size	Sediment	4/12/2012	12:20	1	16 oz Poly Bottle	4 C	N
	BA8G4	SD-011-0008-001	C3	1163	Total Organic Carbon	Sediment	4/12/2012	12:20	1	8 oz Glass Jar	4 C	N
	BA8G4	SD-011-0008-001	C3	1164	Grain Size	Sediment	4/12/2012	12:20	1	16 oz Poly Bottle	4 C	N
	BA8G6	SD-012-0008-001	C2	1175	Total Organic Carbon	Sediment	4/12/2012	12:55	1	8 oz Glass Jar	4 C	N
	BA8G6	SD-012-0008-001	C2	1176	Grain Size	Sediment	4/12/2012	12:55	1	16 oz Poly Bottle	4 C	N
	BA8G8	SD-013-0008-001	E2	1187	Total Organic Carbon	Sediment	4/12/2012	13:00	1	8 oz Glass Jar	4 C	N

Special Instructions:

 SAMPLES TRANSFERRED FROM
 CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
<i>all samples all analyses</i>	<i>Joel Petty</i>	<i>4/16/12</i>									

USEPA

Date Shipped: 4/16/2012

Carrier Name: Hand Delivery

Airbill No: NA

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041312-184715-0010

Cooler #: 2

Lab: DESA

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8G8	SD-013-0006-001	E2	1188	Grain Size	Sediment	4/12/2012	13:00	1	16 oz Poly Bottle	4 C	N
	BA8G9	SD-014-0006-001	E1	1194	Total Organic Carbon	Sediment	4/12/2012	15:00	1	8 oz Glass Jar	4 C	N
	BA8G9	SD-014-0006-001	E1	1195	Grain Size	Sediment	4/12/2012	15:00	1	16 oz Poly Bottle	4 C	N
	BA8H0	SD-015-0006-001	C1	1201	Total Organic Carbon	Sediment	4/12/2012	16:30	1	8 oz Glass Jar	4 C	N
	BA8H0	SD-015-0006-001	C1	1202	Grain Size	Sediment	4/12/2012	16:30	1	16 oz Poly Bottle	4 C	N
	BA8H1	SD-016-0006-001	D3	1208	Total Organic Carbon	Sediment	4/12/2012	14:55	1	8 oz Glass Jar	4 C	N
	BA8H1	SD-016-0006-001	D3	1209	Grain Size	Sediment	4/12/2012	14:55	1	16 oz Poly Bottle	4 C	N
	BA8H2	SD-017-0006-001	D2	1215	Total Organic Carbon	Sediment	4/12/2012	15:55	1	8 oz Glass Jar	4 C	N
	BA8H2	SD-017-0006-001	D2	1216	Grain Size	Sediment	4/12/2012	15:55	1	16 oz Poly Bottle	4 C	N
	BA8H3	SD-018-0006-001	D1	1222	Total Organic Carbon	Sediment	4/12/2012	16:40	1	8 oz Glass Jar	4 C	N
	BA8H3	SD-018-0006-001	D1	1223	Grain Size	Sediment	4/12/2012	16:40	1	16 oz Poly Bottle	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Joel Petty	4/16/12									

USEPA

Date Shipped: 4/16/2012

Carrier Name: Hand Delivery

Airbill No: NA

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041312-184715-0010

Cooler #: 2

Lab: DESA

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8H9	SD-019-0006-001	GSR-MID	1254	Total Organic Carbon	Sediment	4/12/2012	17:50	1	8 oz Glass Jar	4 C	N
	BA8H9	SD-019-0006-001	GSR-MID	1255	Grain Size	Sediment	4/12/2012	17:50	1	16 oz Poly Bottle	4 C	N
	BA8J2	SD-020-0006-001	B3	1271	Total Organic Carbon	Sediment	4/13/2012	09:30	1	8 oz Glass Jar	4 C	N
	BA8J2	SD-020-0006-001	B3	1272	Grain Size	Sediment	4/13/2012	09:30	1	16 oz Poly Bottle	4 C	N
	BA8K0	SD-021-0006-001	A2	1309	Total Organic Carbon	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K0	SD-021-0006-001	A2	1310	Grain Size	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K2	SD-022-0006-001	B2	1321	Total Organic Carbon	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K2	SD-022-0006-001	B2	1322	Grain Size	Sediment	4/13/2012	11:20	1	8 oz Glass Jar	4 C	N
	BA8K5	SD-023-0006-001	B1	1338	Total Organic Carbon	Sediment	4/13/2012	14:40	1	8 oz Glass Jar	4 C	N
	BA8K5	SD-023-0006-001	B1	1339	Grain Size	Sediment	4/13/2012	14:40	1	8 oz Glass Jar	4 C	N
	BA8K6	SD-024-0006-001	B1	1345	Total Organic Carbon	Sediment	4/13/2012	14:30	1	8 oz Glass Jar	4 C	N

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
<i>all samples all analyses</i>	<i>Joel Petty</i>	<i>4/16/12</i>									

USEPA

Date Shipped: 4/16/2012

Carrier Name: Hand Delivery

Airbill No: NA

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

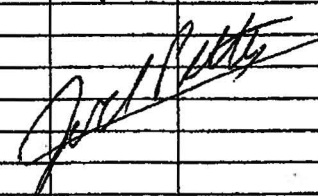
Contact Phone: 732-570-4943

No: 2-041312-184715-0010

Cooler #: 2

Lab: DESA

Case #: 42434

Lab #	CLP Sample #	Sample #	Location	Tag	Analyses	Matrix	Collected	Sample Time	Num b Cont	Container	Preservative	MS/MS D
	BA8K6	SD-024-0008-001	B1	1346	Grain Size	Sediment	4/13/2012	14:30	1	8 oz Glass Jar	4 C	N
												

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all sample all analyses	Joel Petty	4/16/12									

AirbillNo: NA

CHAIN OF CUSTODY RECORD

Site #: 02P9

Contact Name: Joel Petty

Contact Phone: 732-570-4943

No: 2-041612-154709-0013

Cooler #: 1

Lab: DESA

Case #: 42434

[illegible]

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all samples all analyses	Jed Petro	4/17/10	[Signature]	4/17/12	10:20						

Temp = 8.9°C on ice 4/17/12

ATTACHMENT D

Removal Assessment Validated Data Tables

Table 1
Validated Sediment Sample Analytical Results Table (TCL VOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SD-001-0006-001	SD-001-0006-002*	SD-002-0006-001	SD-003-0006-001	SD-004-0006-001	SD-005-0006-001	SD-006-0006-001	SD-007-0006-001	SD-008-0006-001	SD-009-0006-001	SD-010-0006-001	SD-011-0006-001	SD-012-0006-001	SD-013-0006-001	SD-014-0006-001	SD-015-0006-001
CLP #	BA8D7	BA8D8	BA8E9	BA8F1	BA8F2	BA8F3	BA8F4	BA8F5	BA8F6	BA8F7	BA8G2	BA8G4	BA8G6	BA8G8	BA8G9	BA8H0
Sample Date	04/09/2012	04/09/2012	4/10/2012	4/11/2012	4/11/2012	04/11/2012	04/11/2012	04/11/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
TCL VOCs																
1,1,1-Trichloroethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	8.5 J	8.4 U	5.6 U	280 J	100	0.83 J
1,1,2,2-Tetrachloroethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
1,1,2-Trichloroethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 UJ	5.3 U
1,1-Dichloroethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	17 J	17 U	15 U	14 U	18 U	8.8 J	8.4 U	5.6 U	31 J	3 J	5.3 U
1,1-Dichloroethene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
1,2,3-Trichlorobenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 UJ	18 U	39 UJ	8.4 UJ	5.6 U	40 UJ	5.9 UJ	5.3 UJ
1,2,4-Trichlorobenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 UJ	18 U	39 UJ	8.4 UJ	5.6 U	40 UJ	5.9 UJ	5.3 UJ
1,2-Dibromo-3-chloropropane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
1,2-Dibromoethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
1,2-Dichlorobenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 UJ	18 U	39 UJ	8.4 UJ	5.6 U	40 UJ	5.9 UJ	5.3 UJ
1,2-Dichloroethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
1,2-Dichloropropane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
1,3-Dichlorobenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 UJ	18 U	39 UJ	8.4 UJ	5.6 U	40 UJ	5.9 UJ	5.3 UJ
1,4-Dichlorobenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 UJ	18 U	39 UJ	8.4 UJ	5.6 U	40 UJ	5.9 UJ	5.3 UJ
1,4-Dioxane	660 R	660 R	710 UJ	960 R	140 U	690 UJ	330 UJ	290 UJ	290 UJ	370 UJ	770 UJ	170 U	110 U	810 UJ	120 U	110 U
2-Butanone	66 UJ	66 UJ	71 UJ	96 UJ	14 U	69 UJ	33 U	29 U	29 U	37 U	77 UJ	17 U	11 U	81 UJ	12 U	11 U
2-Hexanone	66 UJ	66 UJ	71 UJ	96 UJ	14 U	69 UJ	33 U	29 U	29 U	37 U	77 UJ	17 U	11 U	81 UJ	12 U	11 U
4-Methyl-2-Pentanone	66 UJ	66 UJ	71 UJ	96 UJ	14 UJ	69 UJ	33 U	29 U	29 UJ	37 U	77 UJ	17 U	11 U	81 UJ	12 U	11 U
Acetone	66 UJ	66 UJ	71 UJ	200 UJ	14 U	230 UJ	33 U	29 U	29 U	37 U	190 UJ	17 U	11 U	81 UJ	12 U	11 U
Benzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Bromochloromethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Bromodichloromethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Bromoform	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Bromomethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Carbon disulfide	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Carbon Tetrachloride	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Chlorobenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 UJ	18 U	39 UJ	8.4 UJ	5.6 U	40 UJ	5.9 UJ	5.3 UJ
Chloroethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Chloroform	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Chloromethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
cis-1,2-Dichloroethene	33 UJ	33 UJ	35 UJ	4.4 J	6.9 UJ	66 J	17 U	15 U	14 U	18 U	8.4 J	8.4 U	1.5 J	80 J	0.81 J	1.3 J
cis-1,3-Dichloropropene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Cyclohexane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Dibromochloromethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Dichlorodifluoromethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Ethylbenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Isopropylbenzene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
m,p-Xylene*	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Methyl Acetate	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Methylcyclohexane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Methylene Chloride	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Metyl ter-Butyl ether	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
o-Xylene*	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Styrene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Tetrachloroethene	4.1 J	5.8 J	35 UJ	48 UJ	1.6 J	30 J	3.8 J	1.7 J	2.5 J	5.4 J	76 J	21	11	1200 J	930	410 J
Toluene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
trans-1,2-Dichloroethene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
trans-1,3-Dichloropropene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Trichloroethene	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	47 J	17 U	15 U	1.3 J	18 U	19 J	0.95 J	1.7 J	140 J	54	13
Trichlorofluoromethane	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Vinyl Chloride	33 UJ	33 UJ	35 UJ	48 UJ	6.9 UJ	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U

Note:
* Field duplicate of SD-001-0006-001
** Field duplicate of SD-021-0006-001
All data contained within the table has been validated and is reported in micrograms per kilograms (µg/Kg).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
CLP = Contract Laboratory Program
TCL VOCs = Target Compound List Volatile Organic Compounds

Table 1
Validated Sediment Sample Analytical Results Table (TCL VOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SD-016-0006-001	SD-017-0006-001	SD-018-0006-001	SD-019-0006-001	SD-020-0006-001	SD-021-0006-001	SD-021-0006-002**	SD-022-0006-001	SD-023-0006-001	SD-024-0006-001	SD-025-0006-001	SD-026-0006-001	SD-027-0006-001
CLP #	BA8H1	BA8H2	BA8H3	BA8H9	BA8J2	BA8K0	BA8K1	BA8K2	BA8K5	BA8K6	BA8K8	BA8L4	BA8L5
Sample Date	04/12/2012	04/12/2012	04/12/2012	04/12/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012	04/16/2012
Sample Location	D3	D2	D1	GSR-MID-1	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GRS-BKG-2
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
TCL VOCs													
1,1,1-Trichloroethane	25 UJ	280	3000 J	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,1,2,2-Tetrachloroethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,1,2-Trichloroethane	25 UJ	0.54 J	6.2 J	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
1,1-Dichloroethane	25 UJ	14	180 J	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,1-Dichloroethene	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,2,3-Trichlorobenzene	25 UJ	6.6 UJ	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 UJ	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
1,2,4-Trichlorobenzene	25 UJ	6.6 UJ	5.4 J	6 U	17 UJ	4.6 U	5.4 U	6.9 UJ	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
1,2-Dibromo-3-chloropropane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,2-Dibromoethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,2-Dichlorobenzene	25 UJ	6.6 UJ	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 UJ	6.4 UJ	16 U	14 J	32 UJ	22 UJ
1,2-Dichloroethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,2-Dichloropropane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
1,3-Dichlorobenzene	25 UJ	6.6 UJ	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 UJ	6.4 UJ	16 U	29 J	32 UJ	22 UJ
1,4-Dichlorobenzene	25 UJ	6.6 UJ	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 UJ	6.4 UJ	16 U	22 J	32 UJ	22 UJ
1,4-Dioxane	500 UJ	130 U	630 UJ	120 UJ	330 U	93 U	110 U	140 U	130 U	320 U	580 UJ	640 UJ	440 UJ
2-Butanone	50 UJ	13 U	63 UJ	12 U	33 U	9.3 U	11 U	14 U	13 U	32 U	58 UJ	64 UJ	44 UJ
2-Hexanone	50 UJ	13 U	63 UJ	12 U	33 U	9.3 U	11 U	14 U	13 U	32 U	58 UJ	64 UJ	44 UJ
4-Methyl-2-Pentanone	50 UJ	13 U	63 UJ	12 U	33 U	9.3 U	11 U	14 U	13 U	32 U	58 UJ	64 UJ	44 UJ
Acetone	280 UJ	13 U	190 UJ	12 U	150 U	9.3 U	11 U	14 U	13 U	81 U	220 UJ	64 UJ	44 UJ
Benzene	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Bromochloromethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Bromodichloromethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Bromoform	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Bromomethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Carbon disulfide	2.2 J	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	1.3 J	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Carbon Tetrachloride	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Chlorobenzene	25 UJ	6.6 UJ	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 UJ	2.2 J	16 U	42 J	32 UJ	22 UJ
Chloroethane	42 J	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Chloroform	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Chloromethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
cis-1,2-Dichloroethene	3.6 J	1.1 J	230 J	6 U	17 U	4.6 U	5.4 U	6.9 U	3.9 J	16 U	29 UJ	32 UJ	22 UJ
cis-1,3-Dichloropropene	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
Cyclohexane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Dibromochloromethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Dichlorodifluoromethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Ethylbenzene	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
Isopropylbenzene	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	17 J	32 UJ	22 UJ
m,p-Xylene*	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
Methyl Acetate	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Methylcyclohexane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Methylene Chloride	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Metyl ter-Butyl ether	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
o-Xylene*	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
Styrene	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
Tetrachloroethene	2.4 J	6000	11000 J	2.2 J	17 UJ	4.6 U	5.4 U	6.9 U	7.2 J	16 U	29 UJ	32 UJ	22 UJ
Toluene	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
trans-1,2-Dichloroethene	25 UJ	6.6 U	3.6 J	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
trans-1,3-Dichloropropene	25 UJ	6.6 U	31 UJ	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 UJ	16 U	29 UJ	32 UJ	22 UJ
Trichloroethene	2.1 J	91	1000 J	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.3 J	16 U	29 UJ	32 UJ	22 UJ
Trichlorofluoromethane	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Vinyl Chloride	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ

Note:

* Field duplicate of SD-001-0006-001

** Field duplicate of SD-021-0006-001

All data contained within the table has been validated and is reported in micrograms per kilograms (µg/Kg).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

UJ = Compound was not detected at a concentration above the reported limit; the value is estimated

CLP = Contract Laboratory Program

TCL VOCs = Target Compound List Volatile Organic Compounds

Table 2
Validated Sediment Sample Analytical Results Table (TCL SVOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SD-001-0006-001	SD-001-0006-002*	SD-002-0006-001	SD-003-0006-001	SD-004-0006-001	SD-005-0006-001	SD-006-0006-001	SD-007-0006-001	SD-008-0006-001	SD-009-0006-001	SD-010-0006-001	SD-011-0006-001	SD-012-0006-001	SD-013-0006-001	SD-014-0006-001	SD-015-0006-001
CLP #	BA8D7	BA8D8	BA8E9	BA8F1	BA8F2	BA8F3	BA8F4	BA8F5	BA8F6	BA8F7	BA8G2	BA8G4	BA8G6	BA8G8	BA8G9	BA8H0
Sample Date	04/09/2012	04/09/2012	4/10/2012	4/11/2012	4/11/2012	04/11/2012	04/11/2012	04/11/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
TCL SVOCs																
1,1'-Biphenyl	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
1,2,4,5-Tetrachlorobenzene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2,2'-Oxybis(1-chloropropane)	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2,3,4,6-Tetrachlorophenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2,4,5-Trichlorophenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2,4,6-Trichlorophenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2,4-Dichlorophenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2,4-Dimethylphenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2,4-Dinitrophenol	1300 UJ	1200 UJ	1300 UJ	1900 UJ	450 U	1400 UJ	770 U	800 U	680 U	820 U	1500 UJ	490 U	420 U	1800 UJ	400 U	410 U
2,4-Dinitrotoluene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 UJ	420 UJ	760 UJ	250 UJ	220 UJ	910 UJ	210 UJ	210 UJ
2,6-Dinitrotoluene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2-Chloronaphthalene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2-Chlorophenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2-Methylnaphthalene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2-Methylphenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
2-Nitroaniline	1300 UJ	1200 UJ	1300 UJ	1900 UJ	450 U	1400 UJ	770 U	800 U	680 U	820 U	1500 UJ	490 U	420 U	1800 UJ	400 U	410 U
2-Nitrophenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
3,3'-Dichlorobenzidine	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
3-Nitroaniline	1300 UJ	1200 UJ	1300 UJ	1900 UJ	450 U	1400 UJ	770 U	800 U	680 U	820 U	1500 UJ	490 U	420 U	1800 UJ	400 U	410 U
4,6-Dinitro-2-methylphenol	1300 UJ	1200 UJ	1300 UJ	1900 UJ	450 U	1400 UJ	770 U	800 U	680 U	820 U	1500 UJ	490 U	420 U	1800 UJ	400 U	410 U
4-Bromophenyl-phenylether	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
4-Chloro-3-methylphenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
4-Chloroaniline	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
4-Chlorophenyl-phenylether	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
4-Methylphenol	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
4-Nitroaniline	1300 UJ	1200 UJ	1300 UJ	1900 UJ	450 U	1400 UJ	770 U	800 U	680 U	820 U	1500 UJ	490 U	420 U	1800 UJ	400 U	410 U
4-Nitrophenol	1300 UJ	1200 UJ	1300 UJ	1900 UJ	450 U	1400 UJ	770 U	800 U	680 U	820 U	1500 UJ	490 U	420 U	1800 UJ	400 U	410 U
Acenaphthene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Acenaphthylene	650 UJ	640 UJ	160 J	980 UJ	71 J	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Acetophenone	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	110 J	520 J	250 U	220 U	910 UJ	210 U	210 U
Anthracene	650 UJ	640 UJ	230 J	980 UJ	160 J	730 UJ	400 U	410 U	350 U	89 J	140 J	250 U	220 U	910 UJ	210 U	210 U
Atrazine	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Benzaldehyde	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Benzo(a)anthracene	370 J	300 J	1200 J	600 J	760	730 UJ	400 U	410 U	350 U	480	820 J	250 U	220 U	910 UJ	210 U	210 U
Benzo(a)pyrene	460 J	370 J	1400 J	690 J	750	730 UJ	400 U	410 U	350 U	480	910 J	250 U	220 U	910 UJ	210 U	210 U
Benzo(b)fluoranthene	600 J	470 J	1700 J	870 J	790	730 UJ	400 U	410 U	350 U	620	1300 J	250 U	220 U	910 UJ	210 U	210 U
Benzo(g,h,i)perylene	350 J	270 J	910 J	480 J	440	730 UJ	400 U	410 U	350 U	320 J	640 J	250 U	220 U	910 UJ	210 U	210 U
Benzo(k)fluoranthene	230 J	240 J	700 J	340 J	450	730 UJ	400 U	410 U	350 U	280 J	510 J	250 U	220 U	910 UJ	210 U	210 U
Bis(2-chloroethoxy)methane	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Bis(2-Chloroethyl)ether	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Bis(2-ethylhexyl)phthalate	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Butylbenzylphthalate	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Caprolactam	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Carbazole	650 UJ	640 UJ	680 UJ	980 UJ	72 J	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Chrysene	490 J	400 J	1700 J	830 J	810	730 UJ	400 U	410 U	350 U	640	1100 J	250 U	220 U	910 UJ	210 U	210 U
Dibenzo(a,h)anthracene	650 UJ	640 UJ	260 J	980 UJ	130 J	730 UJ	400 U	410 U	350 U	95 J	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Dibenzofuran	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Diethylphthalate	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Dimethylphthalate	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Di-n-butylphthalate	650 UJ	640 UJ	150 J	980 UJ	87 J	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Di-n-octylphthalate	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Fluoranthene	970 J	750 J	2800 J	1500 J	1800	140 J	71 J	410 U	350 U	1100	2000 J	250 U	220 U	910 UJ	210 U	210 U
Fluorene	650 UJ	640 UJ	290 J	980 UJ	160 J	730 UJ	400 U	410 U	350 U	100 J	150 J	250 U	220 U	910 UJ	210 U	210 U
Hexachlorobenzene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Hexachlorobutadiene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Hexachlorocyclopentadiene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Hexachloroethane	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Indeno(1,2,3-cd)pyrene	340 J	290 J	960 J	490 J	470	730 UJ	400 U	410 U	350 U	360 J	680 J	250 U	220 U	910 UJ	210 U	210 U
Isophorone	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Naphthalene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Nitrobenzene	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
N-Nitroso-di-n-propylamine	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
N-Nitrosodiphenylamine	650 UJ	640 UJ	680 UJ	980 UJ	230 U	730 UJ	400 U	410 U	350 U	420 U	760 UJ	250 U	220 U	910 UJ	210 U	210 U
Pentachlorophenol	1300 UJ	1200 UJ	1300 UJ	1900 UJ	450 U	1400 UJ	770 U	800 U	680 U	820 U	15					

Table 2
Validated Sediment Sample Analytical Results Table (TCL SVOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SD-016-0006-001	SD-017-0006-001	SD-018-0006-001	SD-019-0006-001	SD-020-0006-001	SD-021-0006-001	SD-021-0006-002**	SD-022-0006-001	SD-023-0006-001	SD-024-0006-001	SD-025-0006-001	SD-026-0006-001	SD-027-0006-001
CLP #	BA8H1	BA8H2	BA8H3	BA8H9	BA8J2	BA8K0	BA8K1	BA8K2	BA8K5	BA8K6	BA8K8	BA8L4	BA8L5
Sample Date	04/12/2012	04/12/2012	04/12/2012	04/12/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012	04/16/2012
Sample Location	D3	D2	D1	GSR-MID-1	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GRS-BKG-2
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
TCL SVOCs													
1,1'-Biphenyl	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
1,2,4,5-Tetrachlorobenzene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2,2'-Oxybis(1-chloropropane)	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2,3,4,6-Tetrachlorophenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2,4,5-Trichlorophenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2,4,6-Trichlorophenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2,4-Dichlorophenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2,4-Dimethylphenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2,4-Dinitrophenol	1300 UJ	390 U	1100 UJ	400 U	690 U	380 U	380 U	490 U	430 UJ	910 U	1300 UJ	1300 UJ	1100 UJ
2,4-Dinitrotoluene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 UJ	650 UJ	690 UJ	570 UJ
2,6-Dinitrotoluene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2-Chloronaphthalene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2-Chlorophenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2-Methylnaphthalene	650 UJ	200 U	580 UJ	210 U	120 J	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2-Methylphenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
2-Nitroaniline	1300 UJ	390 U	1100 UJ	400 U	690 U	380 U	380 U	490 U	430 U	910 U	1300 UJ	1300 UJ	1100 UJ
2-Nitrophenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
3,3'-Dichlorobenzidine	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 UJ	650 UJ	690 UJ	570 UJ
3-Nitroaniline	1300 UJ	390 U	1100 UJ	400 U	690 U	380 U	380 U	490 U	430 U	910 U	1300 UJ	1300 UJ	1100 UJ
4,6-Dinitro-2-methylphenol	1300 UJ	390 U	1100 UJ	400 U	690 U	380 U	380 U	490 U	430 U	910 U	1300 UJ	1300 UJ	1100 UJ
4-Bromophenyl-phenylether	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
4-Chloro-3-methylphenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
4-Chloroaniline	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 UJ	650 UJ	690 UJ	570 UJ
4-Chlorophenyl-phenylether	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
4-Methylphenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
4-Nitroaniline	1300 UJ	390 U	1100 UJ	400 U	690 U	380 U	380 U	490 U	430 U	910 U	1300 UJ	1300 UJ	1100 UJ
4-Nitrophenol	1300 UJ	390 U	1100 UJ	400 U	690 U	380 U	380 U	490 U	430 U	910 U	1300 UJ	1300 UJ	1100 UJ
Acenaphthene	650 UJ	200 U	580 UJ	210 U	170 J	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Acenaphthylene	650 UJ	200 U	580 UJ	210 U	250 J	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Acetophenone	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Anthracene	650 UJ	200 U	580 UJ	210 U	500	190 U	200 U	250 U	220 U	470 U	130 J	690 UJ	570 UJ
Atrazine	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Benzaldehyde	650 UJ	200 U	580 UJ	210 U	84 J	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Benzo(a)anthracene	750 J	200 U	580 UJ	210	2800	190 UJ	200 UJ	250 UJ	220 U	470 U	550 J	280 J	110 J
Benzo(a)pyrene	860 J	200 U	580 UJ	220	1800	190 U	200 U	250 U	220 U	470 U	580 J	380 J	570 UJ
Benzo(b)fluoranthene	1200 J	200 U	580 UJ	250	2900	190 U	200 U	250 U	220 U	470 U	690 J	490 J	570 UJ
Benzo(g,h,i)perylene	620 J	200 U	580 UJ	130 J	1300	190 U	200 U	250 U	220 U	470 U	210 J	210 J	570 UJ
Benzo(k)fluoranthene	400 J	200 U	580 UJ	120 J	950	190 U	200 U	250 U	220 U	470 U	260 J	210 J	570 UJ
Bis(2-chloroethoxy)methane	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Bis(2-Chloroethyl)ether	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Bis(2-ethylhexyl)phthalate	650 UJ	200 U	580 UJ	210 U	170 J	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Butylbenzylphthalate	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Caprolactam	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Carbazole	650 UJ	200 U	580 UJ	210 U	380	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Chrysene	980 J	200 U	580 UJ	260	3300	190 UJ	200 UJ	250 UJ	220 U	89 J	810 J	470 J	140 J
Dibenzo(a,h)anthracene	160 J	200 U	580 UJ	42 J	400	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Dibenzofuran	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Diethylphthalate	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Dimethylphthalate	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Di-n-butylphthalate	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Di-n-octylphthalate	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Fluoranthene	2000 J	200 U	580 UJ	500	5300	35 J	58 J	250 UJ	220 U	130 J	1100 J	780 J	130 J
Fluorene	650 UJ	200 U	580 UJ	210 U	800	190 U	200 U	250 U	220 U	470 U	190 J	690 UJ	570 UJ
Hexachlorobenzene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Hexachlorobutadiene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Hexachlorocyclopentadiene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 UJ	650 UJ	690 UJ	570 UJ
Hexachloroethane	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Indeno(1,2,3-cd)pyrene	660 J	200 U	580 UJ	130 J	1500	190 U	200 U	250 U	220 U	470 U	360 J	270 J	570 UJ
Isophorone	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Naphthalene	650 UJ	200 U	580 UJ	210 U	180 J	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Nitrobenzene	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
N-Nitroso-di-n-propylamine	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
N-Nitrosodiphenylamine	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Pentachlorophenol	1300 UJ	390 U	1100 UJ	400 U	690 U	380 U	380 U	490 U	430 UJ	910 U	1300 UJ	1300 UJ	1100 UJ
Phenanthrene	1200 J	200 U	580 UJ	330	4500	190 U	200 U	250 U	220 U	100 J	1100 J	520 J	570 UJ
Phenol	650 UJ	200 U	580 UJ	210 U	360 U	190 U	200 U	250 U	220 U	470 U	650 UJ	690 UJ	570 UJ
Pyrene	1700 J	200 U	580 UJ	430	6600	190 UJ	200 UJ	250 UJ	220 U	470 U	1600 J	900 J	570 UJ

Note:

* Field duplicate of SD-001-0006-001

** Field duplicate of SD-021-0006-001

All data contained within the table has been validated and is reported in micrograms per kilograms (µg/Kg).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

UJ = Compound was not detected at a concentration above the reported limit; the value is estimated

CLP = Contract Laboratory Program

TCL SVOCs = Target Compound List Semivolatile Organic Compounds

Table 3
Validated Sediment Sample Analytical Results Table (TCL PCBs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SD-001-0006-001	SD-001-0006-002*	SD-002-0006-001	SD-003-0006-001	SD-004-0006-001	SD-005-0006-001	SD-006-0006-001	SD-007-0006-001	SD-008-0006-001	SD-009-0006-001	SD-010-0006-001	SD-011-0006-001	SD-012-0006-001	SD-013-0006-001	SD-014-0006-001	SD-015-0006-001
CLP #	BA8D7	BA8D8	BA8E9	BA8F1	BA8F2	BA8F3	BA8F4	BA8F5	BA8F6	BA8F7	BA8G2	BA8G4	BA8G6	BA8G8	BA8G9	BA8H0
Sample Date	04/09/2012	04/09/2012	4/10/2012	4/11/2012	4/11/2012	04/11/2012	04/11/2012	04/11/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
TCL PCBs																
Aroclor-1016	130 UJ	120 UJ	130 UJ	190 UJ	45 U	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1221	130 UJ	120 UJ	130 UJ	190 UJ	45 U	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1232	130 UJ	120 UJ	130 UJ	190 UJ	45 U	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1242	130 UJ	120 UJ	130 UJ	190 UJ	45 U	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1248	130 UJ	120 UJ	130 UJ	190 UJ	45 U	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1254	130 UJ	120 UJ	130 UJ	190 UJ	45 UJ	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1260	37 J	46 J	54 J	190 UJ	45 U	43 J	16 J	15 J	68 U	30 J	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1262	130 UJ	120 UJ	130 UJ	190 UJ	45 U	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U
Aroclor-1268	130 UJ	120 UJ	130 UJ	190 UJ	45 U	140 UJ	77 U	80 U	68 U	82 U	150 UJ	49 U	42 UJ	180 UJ	40 U	41 U

RST 2 Sample ID	SD-016-0006-001	SD-017-0006-001	SD-018-0006-001	SD-019-0006-001	SD-020-0006-001	SD-021-0006-001	SD-021-0006-002**	SD-022-0006-001	SD-023-0006-001	SD-024-0006-001	SD-025-0006-001	SD-026-0006-001	SD-027-0006-001
CLP #	BA8H1	BA8H2	BA8H3	BA8H9	BA8J2	BA8K0	BA8K1	BA8K2	BA8K5	BA8K6	BA8K8	BA8L4	BA8L5
Sample Date	04/12/2012	04/12/2012	04/12/2012	04/12/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012	04/16/2012
Sample Location	D3	D2	D1	GSR-MID-1	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GRS-BKG-2
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
TCL PCBs													
Aroclor-1016	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1221	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1232	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1242	130 UJ	39 U	110 UJ	40 U	47 J	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1248	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1254	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1260	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1262	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ
Aroclor-1268	130 UJ	39 U	110 UJ	40 U	69 U	38 U	38 U	49 U	43 U	91 U	120 UJ	130 UJ	110 UJ

Note:
* Field duplicate of SD-001-0006-001
** Field duplicate of SD-021-0006-001
All data contained within the table has been validated and is reported in micrograms per kilograms (µg/Kg).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
CLP = Contract Laboratory Program
TCL PCBs = Target Compound List Polychlorinated Biphenyls

Table 4
Validated Sediment Sample Analytical Results Table (TAL Metals and Cyanide)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SD-001-0006-001	SD-001-0006-002*	SD-002-0006-001	SD-003-0006-001	SD-004-0006-001	SD-005-0006-001	SD-006-0006-001	SD-007-0006-001	SD-008-0006-001	SD-009-0006-001	SD-010-0006-001	SD-011-0006-001	SD-012-0006-001	SD-013-0006-001	SD-014-0006-001	SD-015-0006-001
CLP #	MBA8D7	MBA8D8	MBA8E9	MBA8F1	MBA8F2	MBA8F3	MBA8F4	MBA8F5	MBA8F6	MBA8F7	MBA8G2	MBA8G4	MBA8G6	MBA8G8	MBA8G9	MBA8H0
Sample Date	04/09/2012	04/09/2012	4/10/2012	4/11/2012	4/11/2012	04/11/2012	04/11/2012	04/11/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TAL Metals and Cyanide																
Aluminum	36200 J	40200 J	50400 J	45500 J	4970	15200 J	7070	14200 J	10100	14100 J	38400 J	743	236	16200 J	874	594
Antimony	6 UJ	17.9 UJ	18.8 UJ	6 UJ	8.2 UJ	6 UJ	9.4 UJ	14.7 UJ	11.4 UJ	13.5 UJ	6 UJ	8.6 UJ	7.3 UJ	6 UJ	7.7 UJ	7.4 UJ
Arsenic	27.7 J	27.4 J	33.1 J	36.4 J	8.4	8.8 J	3.7	7.1 J	4.9	11 J	63.1 J	0.44 J	1.2 UJ	10.8 J	0.81 J	1.2 UJ
Barium	316 J	346 J	493 J	479 J	55.4	155 J	39	75 J	59.4	161 J	526 J	28.8 U	58.8	365 J	25.7 U	60.1
Beryllium	2 J	2 J	5.5 J	5 J	0.9	3.1 J	0.78 U	1.2 U	0.95 U	1.3 J	5.1 J	0.026 J	0.61 U	4.4 J	0.64 U	0.62 U
Cadmium	2.2 J	2 J	3.9 J	3.6 J	0.21 J	1.8 J	0.078 J	0.13 J	0.087 J	0.83 J	3.4 J	0.14 J	0.096 J	3.9 J	0.1 J	0.069 J
Calcium	3810 J	4230 J	3080 J	3610 J	1080	4140 J	683 J	1160 J	1140	1550 J	2850 J	296 J	181 J	3920 J	53.9 J	47.6 J
Chromium	59.4 J	64 J	44.8 J	42 J	12.1	12.6 J	5.6	10.7 J	8.5	12.4 J	42.1 J	0.63 J	1.2 U	11.4 J	6.2	1.3
Cobalt	22.7 J	23.2 J	26.1 J	27 J	4.1 J	28.2 J	2 J	3.2 J	2.1 J	17.5 J	30.6 J	7.2 U	6.1 U	109 J	21.9	6.2 U
Copper	36.3 J	39 J	33.4 J	33.1 J	2.8 J	15.6 J	5.5	11.8 J	7.8	11.7 J	34.4 J	1.3 J	0.29 J	20.3 J	1.4 J	0.21 J
Iron	45100 J	49700 J	31400 J	41500 J	14000	6880 J	3180	5820 J	4200	12400 J	71700 J	351	393	9450 J	887	372
Lead	72.2 J	78.2 J	118 J	94.8 J	22.5	82.6 J	33	69.2 J	52.8	48.1 J	104 J	13.2	3.8	126 J	6.6	2.8
Magnesium	5040 J	5540 J	3250 J	3310 J	686 U	1320 J	785 U	1230 U	952 U	890 J	2270 J	67.6 J	22.8 J	1140 J	41.6 J	18.8 J
Manganese	1610 J	1750 J	690 J	1020 J	521	449 J	22	39.4 J	28.5	2430 J	4630 J	1510	3770	23900 J	2800	3690
Nickel	37.6 J	39.3 J	37.3 J	33.8 J	3.5 J	25.4 J	5.5 J	10.5 J	7.3 J	11.2 J	29 J	0.87 J	0.65 J	25 J	1.7 J	0.47 J
Potassium	3450 J	3860 J	2210 J	2210 J	686 U	715 J	785 U	1230 U	952 U	1130 UJ	1570 J	719 UJ	605 UJ	555 J	642 U	616 U
Selenium	3.5 U	10.4 U	0.72 J	3.5 U	4.8 U	1.7 J	0.29 J	0.48 J	6.7 U	1.5 J	3.5 U	1.1 J	2.1 J	17.6 J	2 J	2.2 J
Silver	0.66 J	3 U	3.1 U	1 U	1.4 U	1 U	1.6 U	2.5 U	1.9 U	2.3 U	0.67 J	1.4 U	1.2 U	1 U	1.3 U	1.2 U
Sodium	500 U	1490 U	1570 U	500 U	686 U	500 U	785 U	1230 U	952 U	1130 UJ	500 UJ	719 UJ	605 UJ	500 UJ	642 UJ	616 UJ
Thallium	0.37 J	0.27 J	7.8 U	0.53 J	3.4 U	2.5 U	3.9 U	6.1 U	4.8 U	5.6 U	0.98 J	3.6 U	3 U	4.2 J	3.2 U	3.1 U
Vanadium	60.7 J	66.7 J	68.8 J	62.9 J	9.1	25.2 J	10.4	19.1 J	15	23.2 J	58.2 J	2.5 J	0.63 J	24.7 J	2.8 J	0.88 J
Zinc	276 J	280 J	301 J	266 J	43.8	113 J	16.4	33.9 J	25.2	79.7 J	225 J	8.6 U	7.3 U	88.5 J	7.7 U	7.4 U
Mercury	0.24 J	0.23 J	0.32 J	0.25 J	0.014 J	0.22 J	0.085 J	0.14 J	0.092 J	0.23 U	0.21 J	0.14 U	0.12 U	0.31 J	0.59	0.12 U
Cyanide	0.91 J	1.5 UJ	1.6 UJ	0.67 J	0.69 UJ	2.5 UJ	0.78 UJ	1.2 UJ	0.95 UJ	1.1 UJ	0.47 J	0.72 UJ	0.22 J	7.9 J	0.34 J	0.62 UJ

RST 2 Sample ID	SD-016-0006-001	SD-017-0006-001	SD-018-0006-001	SD-019-0006-001	SD-020-0006-001	SD-021-0006-001	SD-021-0006-002**	SD-022-0006-001	SD-023-0006-001	SD-024-0006-001	SD-025-0006-001	SD-026-0006-001	SD-027-0006-001
CLP #	MBA8H1	MBA8H2	MBA8H3	MBA8H9	MBA8J2	MBA8K0	MBA8K1	MBA8K2	MBA8K5	MBA8K6	MBA8K8	MBA8L4	MBA8L5
Sample Date	04/12/2012	04/12/2012	04/12/2012	04/12/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012	04/16/2012
Sample Location	D3	D2	D1	GSR-MID-1	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GRS-BKG-2
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TAL Metals and Cyanide													
Aluminum	36000 J	597	13900 J	3630	19200	3030	3740	8260	445	7260 J	35400 J	39700 J	42500 J
Antimony	6 UJ	7.5 UJ	19.5 UJ	7.6 UJ	10.6 UJ	7 UJ	7.2 UJ	9 UJ	7.7 UJ	14.2 UJ	6 UJ	6 UJ	6 UJ
Arsenic	36.5 J	1.2 UJ	13.2 J	4.6 J	14.7 J	0.58 J	1.6 J	1 J	0.36 J	3.2 J	31.4 J	34 J	23.2 J
Barium	409 J	127	350 J	48.7	194	23.3 U	23.8 U	45.9	25.5 U	117 J	490 J	378 J	329 J
Beryllium	5.1 J	0.62 U	3 J	0.41 J	1.7	0.58 U	0.6 U	0.12 J	0.64 U	0.26 J	2.3 J	2 J	3.7 J
Cadmium	2.5 J	0.21 J	0.89 J	0.078 J	0.68 J	0.58 UJ	0.6 UJ	0.75 UJ	0.11 J	0.37 J	2.1 J	1.2 J	3.1 J
Calcium	2520 J	151 J	1040 J	326 J	1080	33.3 J	38 J	461 J	200 J	420 J	2530 J	2490 J	2620 J
Chromium	40.9 J	1.2 J	3.2 U	11.1	19.1	3.4 R	16.6 R	7.6	2.6	7.6 J	30.5 J	32.5 J	28.2 J
Cobalt	24.8 J	6.2 U	201 J	6.3 U	9.6	5.8 U	6 U	7.5 U	6.4 U	11.8 U	135 J	34.3 J	31.5 J
Copper	35.9 J	1.3 J	26.8 J	2.1 J	14.6	0.74 J	1.1 J	0.5 J	0.68 J	9 J	28.3 J	30.9 J	29.7 J
Iron	44700 J	768	11300 J	10700	26800	2530 J	4670 J	4990	386	2790 J	66700 J	28000 J	18200 J
Lead	97.5 J	5.2	94.2 J	24.4	54.6	3.5	4	6.3	6.5	65.2 J	108 J	94.4 J	118 J
Magnesium	2300 J	22.2 J	249 J	285 J	1410	119 J	137 J	596 J	35.1 J	609 J	2180 J	2440 J	2390 J
Manganese	2820 J	11200	41400 J	534	775	74.4 J	200 J	394	1690	75.9 J	11800 J	2460 J	1720 J
Nickel	27.4 J	0.85 J	12.8 J	2.6 J	11.8	1.3 J	1.9 J	1.9 J	0.64 J	6.1 J	45.3 J	23.8 J	27.1 J
Potassium	1450 J	624 U	1620 U	631 U	886	582 U	596 U	1040	639 U	1180 U	1320 J	1460 J	1210 J
Selenium	3.5 U	5.9	23.7 J	4.4 U	6.2 U	4.1 U	4.2 U	5.2 U	1.2 J	0.36 J	3.5 U	3.5 U	2.3 J
Silver	0.3 J	1.2 U	0.84 J	1.3 U	1.8 U	1.2 U	1.2 U	1.5 U	1.3 U	2.4 U	1.1 J	0.43 J	1 U
Sodium	499 UJ	624 UJ	1620 UJ	631 UJ	885 UJ	582 UJ	596 UJ	750 UJ	639 UJ	1180 UJ	500 UJ	500 UJ	500 UJ
Thallium	0.84 J	0.32 J	2.7 J	3.2 U	0.22 J	3.2 U	3 U	3.7 U	3.2 U	5.9 U	3.3 J	0.49 J	0.69 J
Vanadium	56.3 J	2.5 J	40.2 J	5.6 J	27.3	4.5 J	9	13.3	1.7 J	14.3 J	56.3 J	60.5 J	55.7 J
Zinc	208 J	7.5 U	59.5 J	19.8	91.2	7 U	7.2 U	9 U	7.7 U	42.8 J	162 J	174 J	367 J
Mercury	0.21 J	0.23	0.32 U	0.013 J	0.099 J	0.018 J	0.018 J	0.017 J	0.015 J	0.45 J	0.18 J	0.27 J	0.29 J
Cyanide	0.49 J	0.62 UJ	4.8 J	0.63 UJ	0.88 UJ	0.58 UJ	0.6 UJ	0.75 UJ	0.64 UJ	1.2 UJ	0.5 UJ	0.5 UJ	0.41 J

Note:
* Field duplicate of SD-001-0006-001
** Field duplicate of SD-021-0006-001
All data contained within the table has been validated and is reported in milligrams per kilograms (µg/Kg).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
R = Result is rejected
CLP = Contract Laboratory Program
TAL Metals = Target Analyte List Metals

Table 5
Validated Aqueous Sample Analytical Results Table (TCL VOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SW-001-001	SW-001-002*	SW-002-001	SW-003-001	SW-004-001	SW-005-001	SW-006-001	SW-007-001	SW-008-001	SW-009-001	SW-010-001	SW-011-001	SW-012-001	SW-013-001	SW-014-001	SW-015-001
CLP #	MBA8D5	MBA8D6	MBA8E0	MBA8E1	MBA8E8	MBA8E2	MBA8E3	MBA8E4	MBA8E5	MBA8E6	MBA8F9	MBA8G3	MBA8G5	MBA8G7	MBA8H4	MBA8H5
Sample Date	4/9/2012	4/9/2012	4/10/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL VOCs																
1,1,1-Trichloroethane	1.2	1.2	1.6	1.6	1.7	0.68	0.5 U	0.5 U	0.5 U	0.5 U	8.5 J	0.5 U	0.039 J	34	190	0.58 J
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,1,2-Trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,1-Dichloroethane	0.27 J	0.29 J	0.39 J	0.38 J	0.41 J	0.41 J	0.5 U	0.5 U	0.5 U	0.5 U	1.4	0.5 U	0.5 U	5.2	14 J	6.3 U
1,1-Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.53	0.5 U	0.5 U	0.5 U	0.5 U	0.45 J	0.5 U	0.5 U	1.5	18 U	6.3 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,2-Dibromo-3-chloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,2-Dibromoethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,2-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,2-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,2-Dichloropropane	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,3-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
1,4-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	180 U	63 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	180 U	63 U
4-Methyl-2-Pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	180 U	63 U
Acetone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	180 U	63 U
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Bromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Bromodichloromethane	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Carbon disulfide	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Carbon Tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Chlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
cis-1,2-Dichloroethene	0.39 J	0.44 J	0.58	0.62	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.97	1.9	0.5 U	1.8	15	29	6.3 U
cis-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Cyclohexane	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Dichlorodifluoromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Isopropylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
m,p-Xylene*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Methyl Acetate	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Methylcyclohexane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Methylene Chloride	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Metyl ter-Butyl ether	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
o-Xylene*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Tetrachloroethene	2.4	2.4	3.1	3.1	3.4	5.1	0.97	0.5 U	0.5 U	2.8	18	4.9	9.3	56	340	160
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
trans-1,2-Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 J	18 U	6.3 U
trans-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Trichloroethene	0.34 J	0.32 J	0.44 J	0.47 J	0.49 J	0.85	0.5 U	0.5 U	0.5 U	0.59	2.7	0.38 J	1.2	10	49	7.3
Trichlorofluoromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Vinyl Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U

Note:
* Field duplicate of SW-001-001
** Field duplicate of SW-021-001
All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
CLP = Contract Laboratory Program
TCL VOCs = Target Compound List Volatile Organic Compounds

Table 5
Validated Aqueous Sample Analytical Results Table (TCL VOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SW-016-001	SW-017-001	SW-018-001	SW-019-001	SW-020-001	SW-021-001	SW-021-002**	SW-022-001	SW-023-001	SW-024-001	SW-025-001	SW-026-001	SW-027-001	PW-009-06-001	PW-010-06-001	PW-010-18-001
CLP #	MBA8H6	MBA8H7	MBA8H8	MBA8J0	MBA8J3	MBA8J7	MBA8J8	MBA8K3	MBA8K4	MBA8K7	MBA8K9	MBA8L6	MBA8L7	MBA8E7	MBA8G0	MBA8G1
Sample Date	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	4/13/2012	04/13/2012	04/13/2012	04/13/2012	04/16/2012	4/16/2012	04/16/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	D3	D2	D1	GSR-MID	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GSR-BKG-2	C4	E3	E3
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Pore Water	Pore Water	Pore Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL VOCs																
1,1,1-Trichloroethane	250	800	190	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.045 J	0.5 U
1,1,2,2-Tetrachloroethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	50	54 J	30	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.46 J	0.5 U	0.5 U	0.57	0.15 J	0.5 U
1,1-Dichloroethene	15 J	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.49 J	0.5 U	0.5 U
1,2,3-Trichlorobenzene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.56	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.36 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	25 U	83 U	21 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.57	0.5 U	0.5 U	1.2	0.65	0.93
1,4-Dichlorobenzene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.92	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	250 U	830 U	210 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	250 U	830 U	210 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	250 U	830 U	210 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	250 U	830 U	210 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 J	5 U	5 U	5 U
Benzene	25 U	83 U	21 U	0.5 U	0.13 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.52	0.5 U	0.5 U	0.23 J	0.5 U	0.5 U
Bromochloromethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	25 U	83 U	21 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.12 J	0.5 U	0.5 U	0.5 U	0.094 J	0.35 J	0.5 U
Carbon Tetrachloride	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	25 U	83 U	21 U	0.16 J	0.22 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7	0.5 U	0.5 U
Chloroform	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	61	83 U	80	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.49 J	0.5 U	0.79	0.5 U	0.5 U	8.8	0.28 J	0.5 U
cis-1,3-Dichloropropene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	25 U	83 U	21 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.21 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene*	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Acetate	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	25 U	83 U	21 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Metyl ter-Butyl ether	25 U	83 U	21 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene*	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	490	1700	360	0.5 U	0.06 J	0.5 U	0.5 U	0.26 J	5.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	62	150	83	0.5 U	0.5 U	0.5 U	0.5 U	0.12 J	1.7	0.5 U	0.32 J	0.5 U	0.5 U	0.5 U	0.17 J	0.5 U
Trichlorofluoromethane	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.6	0.5 U	0.5 U

Note:
* Field duplicate of SW-001-001
** Field duplicate of SW-021-001
All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
CLP = Contract Laboratory Program
TCL VOCs = Target Compound List Volatile Organic Compounds

Table 5
Validated Aqueous Sample Analytical Results Table (TCL VOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	PW-019-06-001	PW-020-06-001	PW-021-06-001	PW-025-06-001	PW-025-18-001	RB-041212	RB-041312	RB-041612	TB-040912	TB-041012	TB-041112	TB-041212	TB-041312	TB-041612
CLP #	MBA8J1	MBA8J4	MBA8J9	MBA8L0	MBA8L1	MBA8D3	MBA8J6	MBA8L3	BA8D4	BA8D9	BA8F0	BA8F8	BA8J5	BA8L2
Sample Date	4/12/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012	4/12/2012	04/13/2012	04/16/2012	4/9/2012	4/10/2012	4/11/2012	4/12/2012	4/13/2012	4/16/2012
Sample Location	GSR-MID	B3	A2	GSR-MID-2	GSR-MID-2	Rinsate Blank	Rinsate Blank	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Matrix	Pore Water	Pore Water	Pore Water	Pore Water	Pore Water	Rinsate Blank	Rinsate Blank	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL VOCs														
1,1,1-Trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	0.5 U	0.5 U	0.19 J	0.43 J	1.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.25 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	0.5 U	0.5 U	0.12 J	0.43 J	0.78	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.44 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	0.63	1.5	1.5	1.8	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	0.5 U	0.5 U	0.24 J	0.77	0.85	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	5 U	5 U	5 U	11 U	5 U	4.1 J	1.4 J	1.1 J	3.4 J	4.6 J	5.3	5.3	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	5 U	5 U	5 U	5 U	5 U	57	30	31	14	49	57	54	33	32
Benzene	0.5 U	0.45 J	0.15 J	0.27 J	1.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.46 J	0.32 J	0.32 J	0.5 U	0.52	0.37 J	0.14 J	0.34 J	0.31 J
Bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	0.5 U	0.5 U	0.5 U	0.12 J	0.26 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.12 J	0.097 J	0.091 J	0.5 U	0.5 U	0.5 U	0.5 U	0.11 J	0.092 J
Chlorobenzene	0.5 U	0.61	0.13 J	6.8	4.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	0.5 U	0.5 U	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.4	1.7	1.6	0.5 U	3.2	2	0.53	1.8	1.6
Chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	0.5 U	0.52	0.5 U	0.5 U	3.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	0.5 U	0.5 UJ	0.5 UJ	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	0.5 U	0.5 U	0.5 U	0.66	1.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene*	0.5 U	0.5 U	0.5 U	0.15 J	0.21 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Acetate	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	2.5	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Metyl ter-Butyl ether	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.21 J	0.5 U	0.5 U	0.5 U	0.18 J	0.26 J	0.22 J	0.5 U
o-Xylene*	0.5 U	0.5 U	0.5 U	0.5 U	0.096 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	0.5 U	0.5 U	0.29 J	0.5 U	0.5 U	0.5 U	0.5 U	0.062 J	0.5 U	0.065 J	0.5 U	0.5 U	0.5 U	0.064 J
Toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.13 J	0.085 J	0.11 J	0.094 J	0.14 J	0.12 J	0.11 J	0.17 J	0.13 J
trans-1,2-Dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.46 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	0.5 U	0.25 J	0.76	0.5 U	0.61	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Note:

* Field duplicate of SW-001-001

** Field duplicate of SW-021-001

All data contained within the table has been validated and is reported in micrograms per liter (µg/L).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

UJ = Compound was not detected at a concentration above the reported limit; the value is estimated

CLP = Contract Laboratory Program

TCL VOCs = Target Compound List Volatile Organic Compounds

Table 6
Validated Aqueous Sample Analytical Results Table (TCL SVOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SW-001-001	SW-001-002*	SW-002-001	SW-003-001	SW-004-001	SW-005-001	SW-006-001	SW-007-001	SW-008-001	SW-009-001	SW-010-001	SW-011-001	SW-012-001	SW-013-001	SW-014-001	SW-015-001
CLP #	MBA8D5	MBA8D6	MBA8E0	MBA8E1	MBA8E8	MBA8E2	MBA8E3	MBA8E4	MBA8E5	MBA8E6	MBA8F9	MBA8G3	MBA8G5	MBA8G7	MBA8H4	MBA8H5
Sample Date	4/9/2012	4/9/2012	4/10/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL SVOCs																
1,1'-Biphenyl	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4,5-Tetrachlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-Tetrachlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	10 UJ	9.9 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitroaniline	10 U	9.9 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-Nitroaniline	10 U	9.9 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	10 U	9.9 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Nitroaniline	10 U	9.9 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	10 U	9.9 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Atrazine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Benzo(g,h,i)perylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	2.5 J	4.1 J	2.8 J	2.5 J	2.1 J	5 U	2.2 J	2.2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	8.3
Butylbenzylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Dibenzofuran	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-octylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Isophorone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	10 U	9.9 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Note:

* Field duplicate of SW-001-001

** Field duplicate of SW-021-001

All data contained within the table has been validated and is reported in micrograms per liter (µg/L).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

CLP = Contract Laboratory Program

TCL SVOCs = Target Compound List Semivolatile Organic Compounds

Table 6
Validated Aqueous Sample Analytical Results Table (TCL SVOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SW-016-001	SW-017-001	SW-018-001	SW-019-001	SW-020-001	SW-021-001	SW-021-002**	SW-022-001	SW-023-001	SW-024-001	SW-025-001	SW-026-001	SW-027-001	PW-009-06-001	PW-010-06-001	PW-010-18-001
CLP #	MBA8H6	MBA8H7	MBA8H8	MBA8J0	MBA8J3	MBA8J7	MBA8J8	MBA8K3	MBA8K4	MBA8K7	MBA8K9	MBA8L6	MBA8L7	MBA8E7	MBA8G0	MBA8G1
Sample Date	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	04/13/2012	04/13/2012	04/13/2012	04/16/2012	04/16/2012	04/16/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	D3	D2	D1	GSR-MID	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GSR-BKG-2	C4	E3	E3
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Pore Water	Pore Water	Pore Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL SVOCs																
1,1'-Biphenyl	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4,5-Tetrachlorobenzene	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
2,3,4,6-Tetrachlorophenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-Trichlorophenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorophenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloro-3-methylphenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloroaniline	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Atrazine	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	5 U	2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4	5 U	3.2 J	5 U	5 U	5 U	5 U	5 U
Butylbenzylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-octylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Isophorone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Note:

* Field duplicate of SW-001-001

** Field duplicate of SW-021-001

All data contained within the table has been validated and is reported in micrograms per liter (µg/L).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

CLP = Contract Laboratory Program

TCL SVOCs = Target Compound List Semivolatile Organic Compounds

Table 6
Validated Aqueous Sample Analytical Results Table (TCL SVOCs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	PW-019-06-001	PW-020-06-001	PW-021-06-001	PW-025-06-001	RB-041212	RB-041312	RB-041612
CLP #	MBA8J1	MBA8J4	MBA8J9	MBA8L0	MBA8D3	MBA8J6	MBA8L3
Sample Date	4/12/2012	4/13/2012	4/13/2012	04/16/2012	4/12/2012	04/13/2012	04/16/2012
Sample Location	GSR-MID	B3	A2	GSR-MID-2	Rinsate Blank	Rinsate Blank	Rinsate Blank
Matrix	Pore Water	Pore Water	Pore Water	Pore Water	Rinsate Blank	Rinsate Blank	Rinsate Blank
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL SVOCs							
1,1'-Biphenyl	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4,5-Tetrachlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-Tetrachlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloroaniline	5 U	5 U	5 U	19	5 U	5 U	5 U
4-Chlorophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Atrazine	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl)phthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Butylbenzylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	5 U	5 U	5 U	2,3 J	5 U	5 U	5 U
Carbazole	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	5 U	5 U	5 U	1,1 J	5 U	5 U	5 U
Dimethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-octylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isophorone	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Note:

* Field duplicate of SW-001-001

** Field duplicate of SW-021-001

All data contained within the table has been validated and is reported in micrograms per liter (µg/L).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

CLP = Contract Laboratory Program

TCL SVOCs = Target Compound List Semivolatile Organic Compounds

Table 7
Validated Aqueous Sample Analytical Results Table (TCL PCBs)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SW-001-001	SW-001-002*	SW-002-001	SW-003-001	SW-004-001	SW-005-001	SW-006-001	SW-007-001	SW-008-001	SW-009-001	SW-010-001	SW-011-001	SW-012-001	SW-013-001	SW-014-001	SW-015-001
CLP #	MBA8D5	MBA8D6	MBA8E0	MBA8E1	MBA8E8	MBA8E2	MBA8E3	MBA8E4	MBA8E5	MBA8E6	MBA8F9	MBA8G3	MBA8G5	MBA8G7	MBA8H4	MBA8H5
Sample Date	4/9/2012	4/9/2012	4/10/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL PCBs																
Aroclor-1016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1232	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1242	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1262	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1268	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

RST 2 Sample ID	SW-016-001	SW-017-001	SW-018-001	SW-019-001	SW-020-001	SW-021-001	SW-021-002**	SW-022-001	SW-023-001	SW-024-001	SW-025-001	SW-026-001	SW-027-001	PW-009-06-001	PW-010-06-001	PW-010-18-001
CLP #	MBA8H6	MBA8H7	MBA8H8	MBA8J0	MBA8J3	MBA8J7	MBA8J8	MBA8K3	MBA8K4	MBA8K7	MBA8K9	MBA8L6	MBA8L7	MBA8E7	MBA8G0	MBA8G1
Sample Date	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	4/13/2012	04/13/2012	04/13/2012	04/13/2012	04/16/2012	4/16/2012	04/16/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	D3	D2	D1	GSR-MID	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GSR-BKG-2	C4	E3	E3
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Pore Water	Pore Water	Pore Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL PCBs																
Aroclor-1016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1232	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1242	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1262	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1268	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U	1 U	1 U

RST 2 Sample ID	PW-019-06-001	PW-020-06-001	PW-021-06-001	PW-025-06-001	RB-041212	RB-041312	RB-041612
CLP #	MBA8J1	MBA8J4	MBA8J9	MBA8L0	MBA8D3	MBA8J6	MBA8L3
Sample Date	4/12/2012	4/13/2012	4/13/2012	04/16/2012	4/12/2012	04/13/2012	04/16/2012
Sample Location	GSR-MID	B3	A2	GSR-MID-2	Rinsate Blank	Rinsate Blank	Rinsate Blank
Matrix	Pore Water	Pore Water	Pore Water	Pore Water	Rinsate Blank	Rinsate Blank	Rinsate Blank
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TCL PCBs							
Aroclor-1016	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1232	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1242	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1262	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1268	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Note:
* Field duplicate of SW-001-001
** Field duplicate of SW-021-001

All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
U = Compound was not detected at a concentration above the reported limit
CLP = Contract Laboratory Program
TCL PCBs = Target Compound List Polychlorinated Biphenyls

Table 8
Validated Aqueous Sample Analytical Results Table (TAL Metals and Cyanide)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	SW-001-001	SW-001-002*	SW-002-001	SW-003-001	SW-004-001	SW-005-001	SW-006-001	SW-007-001	SW-008-001	SW-009-001	SW-010-001	SW-011-001	SW-012-001	SW-013-001	SW-014-001	SW-015-001
CLP #	MBA8D5	MBA8D6	MBA8E0	MBA8E1	MBA8E8	MBA8E2	MBA8E3	MBA8E4	MBA8E5	MBA8E6	MBA8F9	MBA8G3	MBA8G5	MBA8G7	MBA8H4	MBA8H5
Sample Date	4/9/2012	4/9/2012	4/10/2012	4/11/2012	4/11/2012	4/11/2012	4/12/2012	4/11/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TAL Metals and Cyanide																
Aluminum	630 J	604 J	613 J	333 J	259 J	895 J	3230 J	46600 J	456 J	182 J	1010 J	72.6 J	29.5 J	3230 J	832	767
Antimony	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	10 U	10 U	10 U	10 U	10 U	10 U	10 U	36.8	10 U	10 U	10 U	10 U	10 U	10 U	1.1 J	10 U
Barium	200 U	200 U	200 U	200 U	200 U	200 U	200 U	363	200 U	200 U	200 U	200 U	200 U	200 U	200 U	301
Beryllium	0.086 J	0.088 J	0.099 J	0.082 J	0.13 J	0.34 J	0.36 J	3.7 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.74 J	5 U	5 U	5 U	5 U	5 U	0.43 J	5 U	0.87 J
Calcium	19900	20400	20400	20200	20300	11200	8660	15200	9560	8210 U	19000	8510	8890	9350	6970	7290
Chromium	10 U	10 U	10 U	10 U	10 U	10 U	1.4 J	35.9	10 U	10 U	10 U	10 U	10 U	5.2 J	3.3 J	1.6 J
Cobalt	0.93 J	0.93 J	1.2 J	0.82 J	0.69 J	3.2 J	3.6 J	15.5 J	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper	25 U	25 U	25 U	25 U	25 U	2.8 J	2.5 J	42.6	25 U	25 U	31.1	25 U	25 U	3.7 J	1.6 J	3.5 J
Iron	1840	1770	1940	1510	1540	649	2030	22400	252	390	4280	100 U	100 U	5580	2370	844
Lead	10 U	10 U	10 U	10 U	10 U	4.8 J	17.4	302	10 U	10 U	2.4 J	10 U	10 U	22	5.5 J	15.4
Magnesium	10200	10500	10700	10500	10400	5200	5000 U	7860	5000 U	5000 U	9740	5000 U	5000 U	5920	5060 J	5000 U
Manganese	556	559	669	561	493	225	135	379	83.1	657	809	308	541	3040	1900	31600
Nickel	2.3 J	40 U	40 U	40 U	40 U	3.3 J	5.8 J	50.3	3.5 J	40 U	3.8 J	40 U	40 U	4.8 J	1.7 J	2.9 J
Potassium	4000 J	4060 J	4090 J	3930 J	3910 J	1990 J	2190 J	7540	5000 U	5000 U	5000 U	5000 U	5000 U	5000 UJ	5000 UJ	5000 UJ
Selenium	1.1 J	0.84 J	1.3 J	35 U	35 U	1.1 J	1.3 J	3.5 J	35 U	35 U	1.7 J	35 U	35 U	3.3 J	35 U	35 U
Silver	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.4 J
Sodium	36900	37400	40000	37900	37600	3370 J	2880 J	4050 J	5000 U	5000 U	30900	5000 U	5000 U	5000 U	5000 U	5000 U
Thallium	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Vanadium	50 U	50 U	50 U	50 U	50 U	2 J	5.4 J	73.1	50 U	50 U	1.8 J	50 U	50 U	5.8 J	1.9 J	1.5 J
Zinc	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 UJ	60 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.77	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.11 J	0.21	0.11 J
Cyanide	10 U	10 U	10 U	0.26 J	10 U	10 U	10 U	0.11 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

RST 2 Sample ID	SW-016-001	SW-017-001	SW-018-001	SW-019-001	SW-020-001	SW-021-001	SW-021-002**	SW-022-001	SW-023-001	SW-024-001	SW-025-001	SW-026-001	SW-027-001	PW-009-06-001	PW-010-06-001	PW-010-18-001
CLP #	MBA8H6	MBA8H7	MBA8H8	MBA8J0	MBA8J3	MBA8J7	MBA8J8	MBA8K3	MBA8K4	MBA8K7	MBA8K9	MBA8L6	MBA8L7	MBA8E7	MBA8G0	MBA8G1
Sample Date	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	4/13/2012	04/13/2012	04/13/2012	04/13/2012	04/16/2012	4/16/2012	04/16/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location	D3	D2	D1	GSR-MID	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GSR-BKG-2	C4	E3	E3
Matrix	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Pore Water	Pore Water	Pore Water
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TAL Metals and Cyanide																
Aluminum	727	1750	7250	127 J	66.9 J	2240 R	518 R	5830	473	4100	349	200 UJ	145 J	22800 J	1040 J	3410 J
Antimony	60 U	60 U	60 U	60 U	60 U	60 U	60 U	1.7 J	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	0.81 J	1.2 J	9 J	10 U	10 U	1.3 J	10 U	18.4	10 U	2.8 J	10 U	10 U	10 U	17.5	10 U	10 U
Barium	200 U	200 U	215	200 U	200 U	200 U	200 U	281	200 U	200 U	200 U	200 U	200 U	488	320	375
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	5 U	5 U	0.55 J	5 U	5 U	5 U	5 U	1.4 J	5 U	0.51 J	5 U	5 U	5 U	5 U	5 U	5 U
Calcium	6870	7870	6670	19800	19600	20200	21200	11600	9250	1170 J	10800	21,600	19700	9700	14400	9680
Chromium	10 U	6.8 J	5.3 J	10 U	7.1 J	4.8 J	10 U	8 J	10 U	4 J	10 U	10 U	10 U	15.7	10 U	2.3 J
Cobalt	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	1 J	50 U	50 U	50 U	50 U
Copper	1.6 J	3.8 J	7.6 J	25 U	25 U	3.5 J	2 J	28.3	3.7 J	10.4 J	1.1 J	25 U	0.9 J	7.8 J	25 U	1.1 J
Iron	1920	3300	18900	1050	1070	6040 J	4170 J	14500	1170	2300	19800	10 U	520	27700	71500	33500
Lead	3.3 J	10.7	37.6	2.1 J	10 U	6 J	3.1 J	152	16.3	39.7	3.5 J	536	2 J	43.4	10 U	3.5 J
Magnesium	5000 U	5000 U	5000 U	10300	10200	14200	10900	5000 U	5190	5000 U	9520	10 U	10300	6990	7280	7230
Manganese	1580	7130	11000	561	626	401 J	531 J	13600	12100	186	8890	12,000	129	2510	5570	2670
Nickel	0.95 J	2.7 J	7.6 J	40 U	1.9 J	2.8 J	1.6 J	11.7 J	3.3 J	4.3 J	3.2 J	682	40 U	12.7 J	1.4 J	40 U
Potassium	5000 UJ	5000 UJ	5000 UJ	5000 UJ	5000 UJ	5000 UJ	5000 UJ	5000 UJ	5000 UJ	5000 UJ	5000 UJ	0.2 U	5000 UJ	5000 U	5000 U	5000 U
Selenium	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	40 U	35 U	3.1 J	5.2 J	3.1 J
Silver	10 U	10 U	10 U	1.6 J	10 U	10 U	10 U	1.5 J	10 U	10 U	10 U	3,930 J	10 U	10 U	10 U	10 U
Sodium	5000 U	5000 U	5000 U	22600	22700	22300	23600	5000 U	5000 U	12300	6150	1.2 J	26200	5600	29300	24600
Thallium	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	10 U	25 U	25 U	25 U	25 U
Vanadium	50 U	5.1 J	15.1 J	50 U	50 U	2.6 J	50 U	26.6 J	50 U	7.6 J	50 U	27,800	50 U	22.5 J	1.7 J	5 J
Zinc	60 U	60 U	60 U	60 U	60 U	60 U	60 U	103	60 U	60 U	60 U	25 U	60 U	62.8 J	60 UJ	60 UJ
Mercury	0.2 U	0.07 J	0.1 J	0.2 U	0.2 U	0.2 U	0.2 U	0.49	0.2 U	0.12 J	0.2 U	50 U	0.2 U	0.038 J	0.2 U	0.038 J
Cyanide	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	60 UJ	10 U	2.4 J	10 U	10 U

Note:
* Field duplicate of SW-001-001
** Field duplicate of SW-021-001
All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
R = Result is rejected.
CLP = Contract Laboratory Program
TAL Metals = Target Analyte List Metals

Table 8
Validated Aqueous Sample Analytical Results Table (TAL Metals and Cyanide)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID	PW-019-06-001	PW-020-06-001	PW-021-06-001	PW-025-06-001	RB-041212	RB-041312	RB-041612
CLP #	MBA8J1	MBA8J4	MBA8J9	MBA8L0	MBA8D3	MBA8J6	MBA8L3
Sample Date	4/12/2012	4/13/2012	4/13/2012	04/16/2012	4/12/2012	04/13/2012	04/16/2012
Sample Location	GSR-MID	B3	A2	GSR-MID-2	Rinsate Blank	Rinsate Blank	Rinsate Blank
Matrix	Pore Water	Pore Water	Pore Water	Pore Water	Rinsate Blank	Rinsate Blank	Rinsate Blank
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Result Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TAL Metals and Cyanide							
Aluminum	9800	3500	11700	827	200 UJ	200 U	10.1 J
Antimony	2.6 J	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	1.1 J	2.5 J	10 U	1.1 J	10 U	10 U	10 U
Barium	2280	301	237	200 U	200 U	200 U	200 U
Beryllium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	5 U	5 U	2.1 J	5 U	5 U	5 U	5 U
Calcium	63200	6620	4310 J	10700	5000 U	5000 U	5000 U
Chromium	7 J	3.2 J	16.7	10 U	10 U	10 U	10 U
Cobalt	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper	4.2 J	2.3 J	3.2 J	1.1 J	25 U	25 U	25 U
Iron	111000	7140	20900	2860	100 U	5.1 J	75.3 J
Lead	13.6	8.2 J	9.2 J	7.1 J	10 U	10 U	10 U
Magnesium	36800	8340	5830	9050	5000 U	5000 U	5000 U
Manganese	6540	2550	5080	24700	15 U	15 U	15 U
Nickel	1.5 J	2 J	14.8 J	2.5 J	40 U	40 U	40 U
Potassium	19000 J	5000 UJ	5000 UJ	5000 UJ	5000 U	5000 UJ	5000 UJ
Selenium	35 U	35 U	35 U	35 U	35 U	35 U	35 U
Silver	1.7 J	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	1820000 J	19600	5000 U	8080	95.7 J	5000 U	5000 U
Thallium	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Vanadium	14.8 J	5.4 J	15.4 J	50 U	50 U	50 U	50 U
Zinc	60 U	60 U	60 U	60 U	60 UJ	60 U	60 U
Mercury	0.2 U	0.2 U	0.053 J	0.2 U	0.2 U	0.2 U	0.2 U
Cyanide	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Note:
* Field duplicate of SW-001-001
** Field duplicate of SW-021-001
All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
R = Result is rejected.
CLP = Contract Laboratory Program
TAL Metals = Target Analyte List Metals

ATTACHMENT E

Screening Level Aquatic Ecological Risk Analysis of PCE and TCE Surface Water, Sediment and Pore



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Solid Waste and Emergency Response
Office of Superfund Remediation and Technology Innovation
Technology Innovation & Field Services Division



ENVIRONMENTAL RESPONSE TEAM

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DATE: October 25, 2012

FROM: Marc S. Greenberg, Ph.D.,
U.S. EPA OSWER/OSRTI/TIFSD-Environmental Response Team

TO: Margaret (Alferman) Gregor,
On-Scene Coordinator
U.S. EPA Region 2, Edison, NJ

SUBJECT: Screening Level Aquatic Ecological Risk Analysis of PERC and TCE, Surface Water,
Sediment, and Pore Water Samples Collected 9-16 April, 2012 Matlack, Inc. Site

The screening ecological values (SEVs) used to evaluate TCE and PERC in water and sediment samples collected at the Matlack Inc. Site are appropriate for evaluating low-level, chronic exposures of ecological receptors, such as aquatic invertebrates and fish. Given that some exceedances of some of these conservative screening values for PERC in surface water, and PERC and TCE in sediments were observed, this identifies the possibility there might be a risk of adverse aquatic ecological effects to such low level, chronic, direct contact exposures at specific seep locations within the site. Another way of stating this finding is that one cannot judge the potential ecological risks at specific locations at the site to be negligible. Although there were some exceedances of conservative screening values, it does not appear that any of the results indicate an immediate or acute threat to life or survival of the ecological receptors. Below is a more detailed discussion of the findings and this conclusion.

Sediment samples

There were 29 sediment samples taken with 19 detections of PERC and 12 detections of TCE. The sediment data are summarized in Table 1 (non-detects treated as zeros) and Table 2 (where ½ method detection limit (MDL) is substituted for non-detects). The screening analysis of the sediments is shown in Table 1a, and was based on the detect-only samples (*i.e.*, non-detects were treated as zeros). If one uses site-specific data to normalize the sediments to 1% total organic carbon (TOC), then only four samples of PERC (locations C1, D1, D2, E1) exceeded the SEVs and one sample for TCE (location D2) exceeded an SEV. These samples are all clustered in the same area of the site (see Figure 1). The exceedances of PERC SEVs at locations C1, E1, and D1 show generally low magnitudes of exceedance (a factor of 1.35 to 3.82). The PERC exceedance at location D2 was a factor of approximately 30 times the SEVs. The

TCE concentration at D2 exceeded only the lower of the two SEVs used by a factor of 1.12. The National Park Service has indicated a maximum permissible ecologically-relevant value for TCE in sediments and soils of 13 mg/kg. This value is higher than all the dry weight concentrations of TCE measured at the Site. While there is no similar permissible ecologically-relevant value for PERC, one could reasonably expect that it would be roughly half (approx. 6.5 mg/kg), based on other SEVs available. The only sample higher than this value was D1 (11 mg/kg) which has been discussed above as a sample with a generally low magnitude of exceedance of the conservative TOC-based SEVs. The PERC and TCE are not bioaccumulative compounds; therefore these contaminants would not be expected to impact the food chain or the overall structure of the ecosystem as a whole in this area of Grand Sprute Run. However, the limited exceedances of the conservative SEVs (Table 1a) indicate that chronic (longer term) sublethal (e.g., growth, reproduction) effects may occur to aquatic invertebrates and/or fish via direct exposure. Further investigation or analysis, such as those often conducted for baseline ecological risk assessment in the remedial program, would be needed to quantitatively assess these potential risks under more realistic environmental exposure assumptions. The results do not indicate that immediate or acutely toxic effects to life or survival would be expected at the levels observed at the Matlack, Inc. Site.

Surface water samples

There were 29 surface water samples taken with 20 detections of PERC and 19 detections of TCE. The surface water data are summarized in Table 3 (non-detects treated as zeros) and Table 4 (where ½ MDL is substituted for non-detects). The screening analysis of the surface water samples is shown in Table 3a, and was based on the detect-only samples (*i.e.*, non-detects were treated as zeros). The maximum concentration of PERC in the water was observed at seep D2, and the level was 1,700 ug/L. This detected concentration for PERC was the only exceedance of the conservative SEVs. However, this detected concentration was below the mean 24-h LC₅₀ (22,945 ug/L) and 96-LC₅₀ (15,035 ug/L) values taken from numerous acute toxicity studies in the EPA ECOTOX(icology) Database of ecological effects (<http://cfpub.epa.gov/ecotox/>) (see Attachments 1 and 2). The observed value was near the 7-d LC₅₀ of 1,400 ug/L obtained from a single study. The concentrations of TCE that were detected in the study were all below the conservative SEVs. Note that all screening values were greater than the MDL for both compounds, which indicates that appropriate analytical methods were employed for this risk evaluation. The conclusion from the analysis above is that while there may be a concern due to low-level chronic (long-term) direct exposures to PERC at a single location on the site, the data do not indicate that there is a concern for acute (short-term) and immediate ecological risks to aquatic receptors exposed to surface water at the site.

Pore water samples

There were 8 pore water samples taken with 1 detection of PERC and 4 detections of TCE. The pore water data are summarized in Table 5 (non-detects treated as zeros) and Table 6 (where ½ MDL is substituted for non-detects). The screening analysis of the pore water samples is shown in Table 5a, and was based on the detect-only samples (*i.e.*, non-detects were treated as zeros). All detected concentrations were many orders of magnitude less than the SEVs. Pore water samples could not be obtained from the same locations where exceedances in surface water and sediments were observed. This is identified as an uncertainty and potential data gap that may be addressed at a later time. There were no exceedances observed for the pore water samples that were collected.

Conclusions and Recommendations

- The results do not indicate that immediate or acutely toxic effects to life or survival would be expected at the levels observed in the sediments and surface water at the Matlack, Inc. Site.
- PERC and TCE are not bioaccumulative compounds and therefore these contaminants are not expected to impact the food chain or the overall structure of the ecosystem as a whole in this area of Grand Sprute Run.
- The limited exceedances of the conservative SEVs (Table 1a) indicate that chronic (longer term) sublethal (e.g., growth, reproduction) effects may occur to aquatic invertebrates and/or fish via direct exposure. Further investigation or analysis, such as those often conducted for baseline ecological risk assessment in the remedial program, would be needed to quantitatively assess these potential risks under more realistic environmental exposure assumptions.

Cc: David Rosoff, EPA Region 2, Edison, NJ
Charles Nace, EPA Region 2, New York, NY
Harry Compton, EPA-ERT, Edison, NJ

Table 1
Sediment Risk Assessment Table (Using "0" to Represent Non-Detects)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID		SD-001-0006-001	SD-001-0006-002*	SD-002-0006-001	SD-003-0006-001	SD-004-0006-001	SD-005-0006-001	SD-006-0006-001	SD-007-0006-001	SD-008-0006-001	SD-009-0006-001	SD-010-0006-001	SD-011-0006-001	SD-012-0006-001	SD-013-0006-001	SD-014-0006-001	SD-015-0006-001
CLP #		BA8D7	BA8D8	BA8E9	BA8F1	BA8F2	BA8F3	BA8F4	BA8F5	BA8F6	BA8F7	BA8G2	BA8G4	BA8G6	BA8G8	BA8G9	BA8H0
Sample Date		04/09/2012	04/09/2012	4/10/2012	4/11/2012	4/11/2012	04/11/2012	04/11/2012	04/11/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012
Sample Location		GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor		1.0	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Organic Carbon (TOC) (mg/kg)		66,000	Not Applicable	89,000	100,000	5,600	190,000	150,000	110,000	78,000	58,000	97,000	31,000	9,600	220,000	13,000	2,600
TCL VOCs																	
1,1-Dichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Adjusted Values	µg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	4.4 J	6.9 U	66 J	17 U	15 U	14 U	18 U	8.4 J	8.4 U	1.5 J	80 J	0.81 J	1.3 J
Adjusted Values	µg/Kg	0	0	0	4.4	0	66	0	0	0	0	8.4	0	1.5	80	0.81	1.3
Tetrachloroethene	µg/Kg	4.1 J	5.8 J	35 UJ	48 UJ	1.6 J	30 J	3.8 J	1.7 J	2.5 J	5.4 J	76 J	21	11	1200 J	930	410 J
Adjusted Values	µg/Kg	4.1	5.8	0	0	1.6	30	3.8	1.7	2.5	5.4	76	21	11	1200	930	410
trans-1,2-Dichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Adjusted Values	µg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	47 J	17 U	15 U	1.3 J	18 U	19 J	0.95 J	1.7 J	140 J	54	13
Adjusted Values	µg/Kg	0	0	0	0	0	47	0	0	1.3	0	19	0.95	1.7	140	54	13
Vinyl Chloride	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Adjusted Values	µg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

RST 2 Sample ID (Concluded)		SD-016-0006-001	SD-017-0006-001	SD-018-0006-001	SD-019-0006-001	SD-020-0006-001	SD-021-0006-001	SD-021-0006-002**	SD-022-0006-001	SD-023-0006-001	SD-024-0006-001	SD-025-0006-001	SD-026-0006-001	SD-027-0006-001
CLP # (Concluded)		BA8H1	BA8H2	BA8H3	BA8H9	BA8J2	BA8K0	BA8K1	BA8K2	BA8K5	BA8K6	BA8K8	BA8L4	BA8L5
Sample Date (Concluded)		04/12/2012	04/12/2012	04/12/2012	04/12/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012	04/16/2012
Sample Location (Concluded)		D3	D2	D1	GSR-MID-1	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GRS-BKG-2
Matrix (Concluded)		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor (Concluded)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Organic Carbon (TOC) (mg/kg) (Concluded)		89,000	3,700	64,000	5,300	82,000	2,400	Not Applicable	11,000	12,000	120,000	88,000	110,000	100,000
TCL VOCs														
1,1-Dichloroethene (29 samples; 0 hits)	µg/Kg	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum	0.0													
Maximum	0.0													
Mean	0.0													
Median	0.0													
SD of Median	0.0													
cis-1,2-Dichloroethene (29 samples; 11 hits)	µg/Kg	3.6 J	1.1 J	230 J	6 U	17 U	4.6 U	5.4 U	6.9 U	3.9 J	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	3.6	1.1	230	0	0	0	0	0	3.9	0	0	0	0
Minimum	0.0													
Maximum	230.0													
Mean	13.8													
Median	0.0													
SD of Median	45.6													
Tetrachloroethene (29 samples; 19 hits)	µg/Kg	2.4 J	6000	11000 J	2.2 J	17 UJ	4.6 U	5.4 U	6.9 U	7.2 J	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	2.4	6000	11000	2.2	0	0	0	0	7.2	0	0	0	0
Minimum	0.0													
Maximum	11,000.0													
Mean	679.8													
Median	2.5													
SD of Median	2,284.1													
trans-1,2-Dichloroethene (29 samples; 1 hit)	µg/Kg	25 UJ	6.6 U	3.6 J	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	0	0	3.6	0	0	0	0	0	0	0	0	0	0
Minimum	0.0													
Maximum	3.6													
Mean	0.1													
Median	0.0													
SD of Median	0.7													
Trichloroethene (29 samples; 12 hits)	µg/Kg	2.1 J	91	1000 J	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.3 J	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	2.1	91	1000	0	0	0	0	0	6.3	0	0	0	0
Minimum	0.0													
Maximum	1,000.0													
Mean	47.5													
Median	0.0													
SD of Median	186.0													
Vinyl Chloride (29 samples; 0 hits)	µg/Kg	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum	0.0													
Maximum	0.0													
Mean	0.0													
Median	0.0													
SD of Median	0.0													

Notes:

* Field duplicate of SD-001-0006-001

** Field duplicate of SD-021-0006-001

All data contained within the table has been validated and is reported in micrograms per kilograms (µg/Kg).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

UJ = Compound was not detected at a concentration above the reported limit; the value is estimated

CLP = Contract Laboratory Program

SD = Standard Deviation

TCL VOCs = Target Compound List Volatile Organic Compounds

	Matrix	Screening Value	Type	Source
TCE	Sediment	1,600 µg/Kg	Screening benchmark	U.S. EPA. (1996a). EcoUpdate: Ecotox Thresholds. U. S. EPA. Office of Solid Waste and Emergency Response. 540/F-95/038.
	Sediment	1,600 µg/Kg	FW Low effect Level	NJ DEP (New Jersey Department of Environmental Protection) (1999). "Guidance for Sediment Quality Evaluations: Freshwater Sediment Screening Guidelines. Site Remediation Program." from http://www.state.nj.us/dep/srp/regs/sediment/table_01.htm.
	Sediment	220 µg/Kg	Screening benchmark	U.S. EPA. (2008). Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. U.S. EPA Office of Research and Development. EPA-600-R-02-016.
PCE	Sediment	530 µg/Kg	Screening benchmark	U.S. EPA. (2008). Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. U.S. EPA Office of Research and Development. EPA-600-R-02-016.
	Sediment	450 µg/Kg	FW Low effect Level	NJ DEP (New Jersey Department of Environmental Protection) (1999). "Guidance for Sediment Quality Evaluations: Freshwater Sediment Screening Guidelines. Site Remediation Program." from http://www.state.nj.us/dep/srp/regs/sediment/table_01.htm.

Table 1a. Sediment data and screening results summary.

Data Summary							Screening Results			
Sample Location	Total Organic Carbon (TOC) (mg/kg)	% TOC	PERC (µg/kg dry wt)	TCE (µg/kg dry wt)	PERC µg/kg @ 1% TOC	TCE µg/kg @ 1% TOC	PERC Ratio to SEV of 530 µg/kg @ 1% TOC ^a	PERC Ratio to SEV of 450 µg/kg @ 1% TOC ^b	TCE Ratio to SEV of 1600 µg/kg @ 1% TOC ^{b,c}	TCE Ratio to SEV of 220 µg/kg @ 1% TOC ^a
GSR-DST-1	66,000	6.6	4.1	0	0.62	0.00	0.00	0.00	0.00	0.00
GSR-DST-1	ND	1	5.8	0	5.80	0.00	0.01	0.01	0.00	0.00
GSR-DST-2	89,000	8.9	0	0	0.00	0.00	0.00	0.00	0.00	0.00
GSR-DST-3	100,000	10	0	0	0.00	0.00	0.00	0.00	0.00	0.00
F5	5,600	0.56	1.6	0	2.86	0.00	0.01	0.01	0.00	0.00
F4	190,000	19	30	47	1.58	2.47	0.00	0.00	0.00	0.01
F3	150,000	15	3.8	0	0.25	0.00	0.00	0.00	0.00	0.00
F2	110,000	11	1.7	0	0.15	0.00	0.00	0.00	0.00	0.00
F1	78,000	7.8	2.5	1.3	0.32	0.17	0.00	0.00	0.00	0.00
C4	58,000	5.8	5.4	0	0.93	0.00	0.00	0.00	0.00	0.00
E3	97,000	9.7	76	19	7.84	1.96	0.01	0.02	0.00	0.01
C3	31,000	3.1	21	0.95	6.77	0.31	0.01	0.02	0.00	0.00
C2	9,600	0.96	11	1.7	11.46	1.77	0.02	0.03	0.00	0.01
E2	220,000	22	1200	140	54.55	6.36	0.10	0.12	0.00	0.03
E1	13,000	1.3	930	54	715.38	41.54	1.35	1.59	0.03	0.19
C1	2,600	0.26	410	13	1576.92	50.00	2.98	3.50	0.03	0.23
D3	89,000	8.9	2.4	2.1	0.27	0.24	0.00	0.00	0.00	0.00
D2	3,700	0.37	6000	91	16216.22	245.95	30.60	36.04	0.15	1.12
D1	64,000	6.4	11000	1000	1718.75	156.25	3.24	3.82	0.10	0.71
GSR-MID-1	5,300	0.53	2.2	0	4.15	0.00	0.01	0.01	0.00	0.00
B3	82,000	8.2	0	0	0.00	0.00	0.00	0.00	0.00	0.00
A2	2,400	0.24	0	0	0.00	0.00	0.00	0.00	0.00	0.00
A2	ND	1	0	0	0.00	0.00	0.00	0.00	0.00	0.00
B2	11,000	1.1	0	0	0.00	0.00	0.00	0.00	0.00	0.00
B1	12,000	1.2	7.2	6.3	6.00	5.25	0.01	0.01	0.00	0.02
A1	120,000	12	0	0	0.00	0.00	0.00	0.00	0.00	0.00
GSR-MID-2	88,000	8.8	0	0	0.00	0.00	0.00	0.00	0.00	0.00
GSR-BKG-1	110,000	11	0	0	0.00	0.00	0.00	0.00	0.00	0.00
GRS-BKG-2	100,000	10	0	0	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

PERC = Tetrachloroethene; TCE = Trichloroethylene; NA = no data

PERC and TCE concentrations have been normalized to 1% TOC using sample-specific TOC

Gray cell indicates exceedance of a screening value

Benchmark Sources:

^aScreening benchmark U.S. EPA. (2008). Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. U.S. EPA Office of Research and Development. EPA-600-R-02-016.

^bFreshwater Low Effect Level. New Jersey Department of Environmental Protection (1999). "Guidance for Sediment Quality Evaluations: Freshwater Sediment Screening Guidelines. Site Remediation Program." From http://www.state.nj.us/dep/srp/regs/sediment/table_01.htm.

^cScreening benchmark U.S. EPA. (1996a). EcoUpdate: Ecotox Thresholds. U. S. EPA, Office of Solid Waste and Emergency Response.

Table 2
Sediment Risk Assessment Table (Using "1/2 Detection Limit" to Represent Non-Detects)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID		SD-001-0006-001	SD-001-0006-002*	SD-002-0006-001	SD-003-0006-001	SD-004-0006-001	SD-005-0006-001	SD-006-0006-001	SD-007-0006-001	SD-008-0006-001	SD-009-0006-001	SD-010-0006-001	SD-011-0006-001	SD-012-0006-001	SD-013-0006-001	SD-014-0006-001	SD-015-0006-001
CLP #		BA8D7	BA8D8	BA8E9	BA8F1	BA8F2	BA8F3	BA8F4	BA8F5	BA8F6	BA8F7	BA8G2	BA8G4	BA8G6	BA8G8	BA8G9	BA8H0
Sample Date		04/09/2012	04/09/2012	4/10/2012	4/11/2012	4/11/2012	04/11/2012	04/11/2012	04/11/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012	04/12/2012
Sample Location		GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor		1.0	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Organic Carbon (TOC) (mg/kg)		66,000	Not Applicable	89,000	100,000	5,600	190,000	150,000	110,000	78,000	58,000	97,000	31,000	9,600	220,000	13,000	2,600
TCL VOCs																	
1,1-Dichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Adjusted Values	µg/Kg	16.5	16.5	17.5	24	3.45	17.5	8.5	7.5	7	9	19.5	4.2	2.8	20	2.95	2.65
cis-1,2-Dichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	4.4 J	6.9 U	66 J	17 U	15 U	14 U	18 U	8.4 J	8.4 U	1.5 J	80 J	0.81 J	1.3 J
Adjusted Values	µg/Kg	16.5	16.5	17.5	4.4	3.45	66	8.5	7.5	7	9	8.4	4.2	1.5	80	0.81	1.3
Tetrachloroethene	µg/Kg	4.1 J	5.8 J	35 UJ	48 UJ	1.6 J	30 J	3.8 J	1.7 J	2.5 J	5.4 J	76 J	21	11	1200 J	930	410 J
Adjusted Values	µg/Kg	4.1	5.8	17.5	24	1.6	30	3.8	1.7	2.5	5.4	76	21	11	1200	930	410
trans-1,2-Dichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Adjusted Values	µg/Kg	16.5	16.5	17.5	24	3.45	17.5	8.5	7.5	7	9	19.5	4.2	2.8	20	2.95	2.65
Trichloroethene	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	47 J	17 U	15 U	1.3 J	18 U	19 J	0.95 J	1.7 J	140 J	54	13
Adjusted Values	µg/Kg	16.5	16.5	17.5	24	3.45	47	8.5	7.5	1.3	9	19	0.95	1.7	140	54	13
Vinyl Chloride	µg/Kg	33 UJ	33 UJ	35 UJ	48 UJ	6.9 U	35 UJ	17 U	15 U	14 U	18 U	39 UJ	8.4 U	5.6 U	40 UJ	5.9 U	5.3 U
Adjusted Values	µg/Kg	16.5	16.5	17.5	24	3.45	17.5	8.5	7.5	7	9	19.5	4.2	2.8	20	2.95	2.65

RST 2 Sample ID (Concluded)		SD-016-0006-001	SD-017-0006-001	SD-018-0006-001	SD-019-0006-001	SD-020-0006-001	SD-021-0006-001	SD-021-0006-002**	SD-022-0006-001	SD-023-0006-001	SD-024-0006-001	SD-025-0006-001	SD-026-0006-001	SD-027-0006-001
CLP # (Concluded)		BA8H1	BA8H2	BA8H3	BA8H9	BA8J2	BA8K0	BA8K1	BA8K2	BA8K5	BA8K6	BA8K8	BA8L4	BA8L5
Sample Date (Concluded)		04/12/2012	04/12/2012	04/12/2012	04/12/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012	04/16/2012
Sample Location (Concluded)		D3	D2	D1	GSR-MID-1	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GRS-BKG-2
Matrix (Concluded)		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Dilution Factor (Concluded)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Organic Carbon (TOC) (mg/kg) (Concluded)		89,000	3,700	64,000	5,300	82,000	2,400	Not Applicable	11,000	12,000	120,000	88,000	110,000	100,000
TCL VOCs														
1,1-Dichloroethene (29 samples; 0 hits)	µg/Kg	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	12.5	3.3	15.5	3	8.5	2.3	2.7	3.45	3.2	8	14.5	16	11
Minimum	2.3													
Maximum	24.0													
Mean	9.8													
Median	8.5													
SD of Median	6.6													
cis-1,2-Dichloroethene (29 samples; 11 hits)	µg/Kg	3.6 J	1.1 J	230 J	6 U	17 U	4.6 U	5.4 U	6.9 U	3.9 J	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	3.6	1.1	230	3	8.5	2.3	2.7	3.45	3.9	8	14.5	16	11
Minimum	0.8													
Maximum	230.0													
Mean	19.3													
Median	7.5													
SD of Median	44.3													
Tetrachloroethene (29 samples; 19 hits)	µg/Kg	2.4 J	6000	11000 J	2.2 J	17 UJ	4.6 U	5.4 U	6.9 U	7.2 J	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	2.4	6000	11000	2.2	8.5	2.3	2.7	3.45	7.2	8	14.5	16	11
Minimum	1.6													
Maximum	11,000.0													
Mean	683.5													
Median	8.5													
SD of Median	2,283.0													
trans-1,2-Dichloroethene (29 samples; 1 hit)	µg/Kg	25 UJ	6.6 U	3.6 J	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	12.5	3.3	3.6	3	8.5	2.3	2.7	3.45	3.2	8	14.5	16	11
Minimum	2.3													
Maximum	24.0													
Mean	9.4													
Median	8.0													
SD of Median	6.6													
Trichloroethene (29 samples; 12 hits)	µg/Kg	2.1 J	91	1000 J	6 U	17 UJ	4.6 U	5.4 U	6.9 U	6.3 J	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	2.1	91	1000	3	8.5	2.3	2.7	3.45	6.3	8	14.5	16	11
Minimum	1.0													
Maximum	1,000.0													
Mean	53.4													
Median	9.0													
SD of Median	184.5													
Vinyl Chloride (29 samples; 0 hits)	µg/Kg	25 UJ	6.6 U	31 UJ	6 U	17 U	4.6 U	5.4 U	6.9 U	6.4 U	16 U	29 UJ	32 UJ	22 UJ
Adjusted Values	µg/Kg	12.5	3.3	15.5	3	8.5	2.3	2.7	3.45	3.2	8	14.5	16	11
Minimum	2.3													
Maximum	24.0													
Mean	8.6													
Median	8.5													
SD of Median	6.6													

Notes:

* Field duplicate of SD-001-0006-001

** Field duplicate of SD-021-0006-001

All data contained within the table has been validated and is reported in micrograms per kilograms (µg/Kg).

J = The reported result is an estimated value

U = Compound was not detected at a concentration above the reported limit

UJ = Compound was not detected at a concentration above the reported limit; the value is estimated

CLP = Contract Laboratory Program

SD = Standard Deviation

TCL VOCs = Target Compound List Volatile Organic Compounds

	Matrix	Screening Value	Type	Source
TCE	Sediment	1,600 µg/Kg	Screening benchmark	U.S. EPA. (1996a). EcoUpdate: Ecotox Thresholds. U. S. EPA. Office of Solid Waste and Emergency Response. 540/F-95/038.
	Sediment	1,600 µg/Kg	FW Low effect Level	NJ DEP (New Jersey Department of Environmental Protection) (1999). "Guidance for Sediment Quality Evaluations: Freshwater Sediment Screening Guidelines. Site Remediation Program." from http://www.state.nj.us/dep/srp/regs/sediment/table_01.htm.
	Sediment	220 µg/Kg	Screening benchmark	U.S. EPA. (2008). Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. U.S. EPA Office of Research and Development. EPA-600-R-02-016.
PCE	Sediment	530 µg/Kg	Screening benchmark	U.S. EPA. (2008). Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. U.S. EPA Office of Research and Development. EPA-600-R-02-016.
	Sediment	450 µg/Kg	FW Low effect Level	NJ DEP (New Jersey Department of Environmental Protection) (1999). "Guidance for Sediment Quality Evaluations: Freshwater Sediment Screening Guidelines. Site Remediation Program." from http://www.state.nj.us/dep/srp/regs/sediment/table_01.htm.

Table 3
Surface Water Risk Assessment Table (Using "0" to Represent Non-Detects)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID		SW-001-001	SW-001-002*	SW-002-001	SW-003-001	SW-004-001	SW-005-001	SW-006-001	SW-007-001	SW-008-001	SW-009-001	SW-010-001	SW-011-001	SW-012-001	SW-013-001	SW-014-001	SW-015-001
CLP #		MBA8D5	MBA8D6	MBA8E0	MBA8E1	MBA8E8	MBA8E2	MBA8E3	MBA8E4	MBA8E5	MBA8E6	MBA8F9	MBA8G3	MBA8G5	MBA8G7	MBA8H4	MBA8H5
Sample Date		4/9/2012	4/9/2012	4/10/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location		GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
TCL VOCs																	
1,1-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.53	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	18 U	6.3 U
Adjusted Values	µg/L	0	0	0	0	0	0.53	0	0	0	0	0	0.45	0	1.5	0	0
cis-1,2-Dichloroethene	µg/L	0.39 J	0.44 J	0.58	0.62	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.97	1.9	0.5 U	1.8	15	29	6.3 U
Adjusted Values	µg/L	0.39	0.44	0.58	0.62	0.7	0	0	0	0	0.97	1.9	0	1.8	15	29	0
Tetrachloroethene	µg/L	2.4	2.4	3.1	3.1	3.4	5.1	0.97	0.5 U	0.5 U	2.8	18	4.9	9.3	56	340	160
Adjusted Values	µg/L	2.4	2.4	3.1	3.1	3.4	5.1	0.97	0	0	2.8	18	4.9	9.3	56	340	160
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 J	18 U	6.3 U
Adjusted Values	µg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0.27	0	0
Trichloroethene	µg/L	0.34 J	0.32 J	0.44 J	0.47 J	0.49 J	0.85	0.5 U	0.5 U	0.5 U	0.59	2.7	0.38 J	1.2	10	49	7.3
Adjusted Values	µg/L	0.34	0.32	0.44	0.47	0.49	0.85	0	0	0	0.59	2.7	0.38	1.2	10	49	7.3
Vinyl Chloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Adjusted Values	µg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

RST 2 Sample ID (Concluded)		SW-016-001	SW-017-001	SW-018-001	SW-019-001	SW-020-001	SW-021-001	SW-021-002**	SW-022-001	SW-023-001	SW-024-001	SW-025-001	SW-026-001	SW-027-001
CLP # (Concluded)		MBA8H6	MBA8H7	MBA8H8	MBA8J0	MBA8J3	MBA8J7	MBA8J8	MBA8K3	MBA8K4	MBA8K7	MBA8K9	MBA8L6	MBA8L7
Sample Date (Concluded)		4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	4/13/2012	04/13/2012	04/13/2012	04/13/2012	04/16/2012	4/16/2012	04/16/2012
Sample Location (Concluded)		D3	D2	D1	GSR-MID	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GSR-BKG-2
Matrix (Concluded)		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor (Concluded)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
TCL VOCs														
1,1-Dichloroethene (29 samples; 4 hits)	µg/L	15 J	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	15	0	0	0	0	0	0	0	0	0	0	0	0
Minimum	0.0													
Maximum	15.0													
Mean	0.6													
Median	0.0													
SD of Median	2.8													
cis-1,2-Dichloroethene (29 samples; 14 hits)	µg/L	61	83 U	80	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.49 J	0.5 U	0.79	0.5 U	0.5 U
Adjusted Values	µg/L	61	0	80	0	0	0	0	0	0.49	0	0.79	0	0
Minimum	0.0													
Maximum	80.0													
Mean	6.7													
Median	0.0													
SD of Median	18.8													
Tetrachloroethene (29 samples; 20 hits)	µg/L	490	1700	360	0.5 U	0.06 J	0.5 U	0.5 U	0.26 J	5.1	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	490	1700	360	0	0.06	0	0	0.26	5.1	0	0	0	0
Minimum	0.0													
Maximum	1,700.0													
Mean	109.2													
Median	2.8													
SD of Median	330.5													
trans-1,2-Dichloroethene (29 samples; 1 hit)	µg/L	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum	0.0													
Maximum	0.3													
Mean	0.0													
Median	0.0													
SD of Median	0.1													
Trichloroethene (29 samples; 19 hits)	µg/L	62	150	83	0.5 U	0.5 U	0.5 U	0.5 U	0.12 J	1.7	0.5 U	0.32 J	0.5 U	0.5 U
Adjusted Values	µg/L	62	150	83	0	0	0	0	0.12	1.7	0	0.32	0	0
Minimum	0.0													
Maximum	150.0													
Mean	12.8													
Median	0.4													
SD of Median	33.3													
Vinyl Chloride (29 samples; 0 hits)	µg/L	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum	0.0													
Maximum	0.0													
Mean	0.0													
Median	0.0													
SD of Median	0.0													

Note:
* Field duplicate of SW-001-001
** Field duplicate of SW-021-001
All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
CLP = Contract Laboratory Program
SD = Standard Deviation
TCL VOCs = Target Compound List Volatile Organic Compounds

		Matrix	Screening Value	Type	Source
	TCE	Water	440 µg/L	Tier II Acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
		Water	3900 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf
	PCE	Water	528 µg/L	FW acute	U.S. EPA Region 4. 2002. Ecological Risk Assessment Bulletin, 2/11/2002. Waste Management Division Freshwater Surface Water Screening Values for Hazardous Waste Sites. www.epa.gov/region4/waste/sf/programs/riskassess/ecolbul.html
		Water	830 µg/L	Tier II acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
		Water	1290 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf

Table 3a
Surface Water Screening Ecological Value Results Table
Matlack, Inc. Site
April 9 through 16, 2012

Analyte	Screening Ecological Value (SEV)	Units	Surface Water Screening Results							
			Sample Size	No. of Detects	Frequency of Detects	Max. Concentration	Max. Concentration HQ	No. of Samples > SEV	Max. Detection Limit	No. of Detection Limits > SEV
TCL VOC										
Tetrachloroethene	528 ^a	µg/L	29	20	68.97%	1,700	3.2	1	0.5	0
	830 ^b						2.0	1		0
	1,290 ^c						1.3	1		0
Trichloroethene	440 ^b	µg/L	29	19	65.52%	150	0.34	0	0.5	0
	3,900 ^c						0.04	0		0

Max. Concentration HQ = Ratio of the maximum measured value to the screening SEV

No. of Samples > SE = Number of detection limits from non-detected samples greater than SEV

Type	Source
^a FW acute	U.S. EPA Region 4. 2002. Ecological Risk Assessment Bulletin, 2/11/2002. Waste Management Division Freshwater Surface Water Screening Values for Hazardous Waste Sites. www.epa.gov/region4/waste/sf/programs/riskassess/ecolbul.html
^b Tier II acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
^c LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf

Table 4
Surface Water Risk Assessment Table (Using "1/2 Detection Limit" to Represent Non-Detects)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID		SW-001-001	SW-001-002*	SW-002-001	SW-003-001	SW-004-001	SW-005-001	SW-006-001	SW-007-001	SW-008-001	SW-009-001	SW-010-001	SW-011-001	SW-012-001	SW-013-001	SW-014-001	SW-015-001
CLP #		MBA8D5	MBA8D6	MBA8E0	MBA8E1	MBA8E8	MBA8E2	MBA8E3	MBA8E4	MBA8E5	MBA8E6	MBA8F9	MBA8G3	MBA8G5	MBA8G7	MBA8H4	MBA8H5
Sample Date		4/9/2012	4/9/2012	4/10/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/11/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012
Sample Location		GSR-DST-1	GSR-DST-1	GSR-DST-2	GSR-DST-3	F5	F4	F3	F2	F1	C4	E3	C3	C2	E2	E1	C1
Matrix		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
TCL VOCs																	
I,1-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.53	0.5 U	0.5 U	0.5 U	0.5 U	0.45 J	0.5 U	0.5 U	1.5	18 U	6.3 U
Adjusted Values	µg/L	0.25	0.25	0.25	0.25	0.25	0.53	0.25	0.25	0.25	0.25	0.45	0.25	0.25	1.5	9	3.15
cis-1,2-Dichloroethene	µg/L	0.39 J	0.44 J	0.58	0.62	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.97	1.9	0.5 U	1.8	15	29	6.3 U
Adjusted Values	µg/L	0.39	0.44	0.58	0.62	0.7	0.25	0.25	0.25	0.25	0.97	1.9	0.25	1.8	15	29	3.15
Tetrachloroethene	µg/L	2.4	2.4	3.1	3.1	3.4	5.1	0.97	0.5 U	0.5 U	2.8	18	4.9	9.3	56	340	160
Adjusted Values	µg/L	2.4	2.4	3.1	3.1	3.4	5.1	0.97	0.25	0.25	2.8	18	4.9	9.3	56	340	160
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 J	18 U	6.3 U
Adjusted Values	µg/L	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.27	9	3.15
Trichloroethene	µg/L	0.34 J	0.32 J	0.44 J	0.47 J	0.49 J	0.85	0.5 U	0.5 U	0.5 U	0.59	2.7	0.38 J	1.2	10	49	7.3
Adjusted Values	µg/L	0.34	0.32	0.44	0.47	0.49	0.85	0.25	0.25	0.25	0.59	2.7	0.38	1.2	10	49	7.3
Vinyl Chloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18 U	6.3 U
Adjusted Values	µg/L	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	9	3.15

RST 2 Sample ID (Concluded)		SW-016-001	SW-017-001	SW-018-001	SW-019-001	SW-020-001	SW-021-001	SW-021-002**	SW-022-001	SW-023-001	SW-024-001	SW-025-001	SW-026-001	SW-027-001
CLP # (Concluded)		MBA8H6	MBA8H7	MBA8H8	MBA8J0	MBA8J3	MBA8J7	MBA8J8	MBA8K3	MBA8K4	MBA8K7	MBA8K9	MBA8L6	MBA8L7
Sample Date (Concluded)		4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	4/13/2012	04/13/2012	04/13/2012	04/13/2012	04/16/2012	4/16/2012	04/16/2012
Sample Location (Concluded)		D3	D2	D1	GSR-MID	B3	A2	A2	B2	B1	A1	GSR-MID-2	GSR-BKG-1	GSR-BKG-2
Matrix (Concluded)		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Dilution Factor (Concluded)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
TCL VOCs														
I,1-Dichloroethene (29 samples; 4 hits)	µg/L	15 J	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	15	41.5	11	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Minimum	0.3													
Maximum	41.5													
Mean	3.0													
Median	0.3													
SD of Median	8.2													
cis-1,2-Dichloroethene (29 samples; 14 hits)	µg/L	61	83 U	80	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.49 J	0.5 U	0.79	0.5 U	0.5 U
Adjusted Values	µg/L	61	41.5	80	0.25	0.25	0.25	0.25	0.25	0.49	0.25	0.79	0.25	0.25
Minimum	0.3													
Maximum	80.0													
Mean	8.3													
Median	0.4													
SD of Median	19.7													
Tetrachloroethene (29 samples; 20 hits)	µg/L	490	1700	360	0.5 U	0.06 J	0.5 U	0.5 U	0.26 J	5.1	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	490	1700	360	0.25	0.06	0.25	0.25	0.26	5.1	0.25	0.25	0.25	0.25
Minimum	0.1													
Maximum	1,700.0													
Mean	109.3													
Median	2.8													
SD of Median	330.5													
trans-1,2-Dichloroethene (29 samples; 1 hit)	µg/L	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	12.5	41.5	11	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Minimum	0.3													
Maximum	41.5													
Mean	2.9													
Median	0.3													
SD of Median	8.1													
Trichloroethene (29 samples; 19 hits)	µg/L	62	150	83	0.5 U	0.5 U	0.5 U	0.5 U	0.12 J	1.7	0.5 U	0.32 J	0.5 U	0.5 U
Adjusted Values	µg/L	62	150	83	0.25	0.25	0.25	0.25	0.12	1.7	0.25	0.32	0.25	0.25
Minimum	0.1													
Maximum	150.0													
Mean	12.9													
Median	0.4													
SD of Median	33.3													
Vinyl Chloride (29 samples; 0 hits)	µg/L	25 U	83 U	21 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	12.5	41.5	11	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Minimum	0.3													
Maximum	41.5													
Mean	2.9													
Median	0.3													
SD of Median	8.1													

Note:
* Field duplicate of SW-001-001
** Field duplicate of SW-021-001
All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
CLP = Contract Laboratory Program
SD = Standard Deviation
TCL VOCs = Target Compound List Volatile Organic Compounds

		Matrix	Screening Value	Type	Source
	TCE	Water	440 µg/L	Tier II Acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
		Water	3900 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf
	PCE	Water	528 µg/L	FW acute	U.S. EPA Region 4. 2002. Ecological Risk Assessment Bulletin, 2/11/2002. Waste Management Division Freshwater Surface Water Screening Values for Hazardous Waste Sites. www.epa.gov/region4/waste/sf/programs/riskassess/ecolbul.html
		Water	830 µg/L	Tier II acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
		Water	1290 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf

Table 5
Pore Water Risk Assessment Table (Using "0" to Represent Non-Detects)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID		PW-009-06-001	PW-010-06-001	PW-010-18-001	PW-019-06-001	PW-020-06-001	PW-021-06-001	PW-025-06-001	PW-025-18-001
CLP #		MBA8E7	MBA8G0	MBA8G1	MBA8J1	MBA8J4	MBA8J9	MBA8L0	MBA8L1
Sample Date		4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012
Sample Location		C4	E3	E3	GSR-MID	B3	A2	GSR-MID-2	GSR-MID-2
Matrix		Pore Water	Pore Water	Pore Water	Pore Water	Pore Water	Pore Water	Pore Water	Pore Water
Dilution Factor		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
TCL VOCs									
1,1-Dichloroethene (8 samples; 1 hit)	µg/L	0.49 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	0.49	0	0	0	0	0	0	0
Minimum	0.0								
Maximum	0.5								
Mean	0.1								
Median	0.0								
SD of Median	0.2								
cis-1,2-Dichloroethene (8 samples; 4 hits)	µg/L	8.8	0.28 J	0.5 U	0.5 U	0.52	0.5 U	0.5 U	3.2
Adjusted Values	µg/L	8.8	0.28	0	0	0.52	0	0	3.2
Minimum	0.0								
Maximum	8.8								
Mean	1.6								
Median	0.1								
SD of Median	3.1								
Tetrachloroethene (8 samples; 1 hit)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.29 J	0.5 U	0.5 U
Adjusted Values	µg/L	0	0	0	0	0	0.29	0	0
Minimum	0.0								
Maximum	0.3								
Mean	0.0								
Median	0.0								
SD of Median	0.1								
trans-1,2-Dichloroethene (8 samples; 1 hit)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.46 J
Adjusted Values	µg/L	0	0	0	0	0	0	0	0.46
Minimum	0.0								
Maximum	0.5								
Mean	0.1								
Median	0.0								
SD of Median	0.2								
Trichloroethene (8 samples; 4 hits)	µg/L	0.5 U	0.17 J	0.5 U	0.5 U	0.25 J	0.76	0.5 U	0.61
Adjusted Values	µg/L	0	0.47	0	0	0.25	0.76	0	0.61
Minimum	0.0								
Maximum	0.8								
Mean	0.3								
Median	0.1								
SD of Median	0.3								
Vinyl Chloride (8 samples; 1 hit)	µg/L	1.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	1.6	0	0	0	0	0	0	0
Minimum	0.0								
Maximum	1.6								
Mean	0.2								
Median	0.0								
SD of Median	0.6								

Note:
All data contained within the table has been validated and is reported in micrograms per liter (µg/L).
J = The reported result is an estimated value
U = Compound was not detected at a concentration above the reported limit
UJ = Compound was not detected at a concentration above the reported limit; the value is estimated
CLP = Contract Laboratory Program
SD = Standard Deviation
TCL VOCs = Target Compound List Volatile Organic Compounds

TCE	Matrix	Screening Value	Type	Source
	Water	440 µg/L	Tier II Acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
	Water	3900 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf
PCE	Water	528 µg/L	FW acute	U.S. EPA Region 4. 2002. Ecological Risk Assessment Bulletin, 2/11/2002. Waste Management Division Freshwater Surface Water Screening Values for Hazardous Waste Sites. www.epa.gov/region4/waste/sf/programs/riskassess/ecolbul.html
	Water	830 µg/L	Tier II acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
	Water	1290 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf

Table 5a
Pore Water Screening Ecological Value Results Table
Matlack, Inc. Site
April 9 through 16, 2012

Analyte	Screening Ecological Value (SEV)	Units	Pore Water Screening Results							
			Sample Size	No. of Detects	Frequency of Detects	Max. Concentration	Max. Concentration HQ	No. of Samples > SEV	Max. Detection Limit	No. of Detection Limits > SEV
TCL VOC										
Tetrachloroethene	528 ^a	µg/L	8	1	12.50%	0.29	0.0005	0	0.5	0
	830 ^b						0.0003	0		0
	1,290 ^c						0.0002	0		0
Trichloroethene	440 ^b	µg/L	8	4	50.00%	0.76	0.002	0	0.5	0
	3,900 ^c						0.0001	0		0

Max. Concentration HQ = Ratio of the maximum measured value to the screening SEV

No. of Samples > SE = Number of detection limits from non-detected samples greater than SEV

Type	Source
^a FW acute	U.S. EPA Region 4. 2002. Ecological Risk Assessment Bulletin, 2/11/2002. Waste Management Division Freshwater Surface Water Screening Values for Hazardous Waste Sites. www.epa.gov/region4/waste/sf/programs/riskassess/ecolbul.html
^b Tier II acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
^c LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf

Table 5
Pore Water Risk Assessment Table (Using "1/2 Detection Limit" to Represent Non-Detects)
Matlack, Inc. Site
April 9 through 16, 2012

RST 2 Sample ID		PW-009-06-001	PW-010-06-001	PW-010-18-001	PW-019-06-001	PW-020-06-001	PW-021-06-001	PW-025-06-001	PW-025-18-001
CLP #		MBA8E7	MBA8G0	MBA8G1	MBA8J1	MBA8J4	MBA8J9	MBA8L0	MBA8L1
Sample Date		4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/13/2012	4/13/2012	04/16/2012	04/16/2012
Sample Location		C4	E3	E3	GSR-MID	B3	A2	GSR-MID-2	GSR-MID-2
Matrix		Pore Water	Pore Water	Pore Water	Pore Water	Pore Water	Pore Water	Pore Water	Pore Water
Dilution Factor		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
TCL VOCs									
1,1-Dichloroethene (8 samples; 1 hit)	µg/L	0.49 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	0.49	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Minimum	0.3								
Maximum	0.5								
Mean	0.3								
Median	0.3								
SD of Median	0.1								
cis-1,2-Dichloroethene (8 samples; 4 hits)	µg/L	8.8	0.28 J	0.5 U	0.5 U	0.52	0.5 U	0.5 U	3.2
Adjusted Values	µg/L	8.8	0.28	0.25	0.25	0.52	0.25	0.25	3.2
Minimum	0.3								
Maximum	8.8								
Mean	1.7								
Median	0.3								
SD of Median	3.0								
Tetrachloroethene (8 samples; 1 hit)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.29 J	0.5 U	0.5 U
Adjusted Values	µg/L	0.25	0.25	0.25	0.25	0.25	0.29	0.25	0.25
Minimum	0.3								
Maximum	0.3								
Mean	0.3								
Median	0.3								
SD of Median	0.0								
trans-1,2-Dichloroethene (8 samples; 1 hit)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.46 J
Adjusted Values	µg/L	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.46
Minimum	0.3								
Maximum	0.5								
Mean	0.3								
Median	0.3								
SD of Median	0.1								
Trichloroethene (8 samples; 4 hits)	µg/L	0.5 U	0.17 J	0.5 U	0.5 U	0.25 J	0.76	0.5 U	0.61
Adjusted Values	µg/L	0.25	0.47	0.25	0.25	0.25	0.76	0.25	0.61
Minimum	0.3								
Maximum	0.8								
Mean	0.4								
Median	0.3								
SD of Median	0.2								
Vinyl Chloride (8 samples; 1 hit)	µg/L	1.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Adjusted Values	µg/L	1.6	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Minimum	0.3								
Maximum	1.6								
Mean	0.4								
Median	0.3								
SD of Median	0.5								

Note:
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TCE	Matrix	Screening Value	Type	Source
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	Water	3900 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf
PCE	Water	528 µg/L	FW acute	U.S. EPA Region 4. 2002. Ecological Risk Assessment Bulletin, 2/11/2002. Waste Management Division Freshwater Surface Water Screening Values for Hazardous Waste Sites. www.epa.gov/region4/waste/sf/programs/riskassess/ecolbul.html
	Water	830 µg/L	Tier II acute	Suter, G. W., II and J. B. Mabrey. (1994). Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota; 1994 Revision. ES/ER/TM-96/R1. Oak Ridge National Laboratory (ORNL) Environmental Sciences Division.
	Water	1290 µg/L	LA FW acute	Louisiana Department of Environmental Quality (LA DEQ). (2007). Surface-Water Quality Standards. Louisiana Title 33, Part IX, Subpart1, Chapter 11: Surface-Water Quality Standards. www.epa.gov/waterscience/standards/wqslibrary/la/la_6_wqs.pdf

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II**

DATE:

APR 12 2013

SUBJECT: Removal Site Evaluation for the Matlack, Inc. Site, Woolwich Township,
Gloucester County, New Jersey

FROM: Margaret (Alferman) Gregor, On-Scene Coordinator
Removal Action Branch

TO: Joseph D. Rotola, Chief
Removal Action Branch

SITE ID: 02P9; CERCLIS# NJD043584101

I. INTRODUCTION

On August 9, 2011, the United States Environmental Protection Agency (EPA) received a request from the New Jersey Department of Environmental Protection (NJDEP) to evaluate the Matlack Inc. Swedesboro Terminal Site (Site) for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Removal Action consideration and recommend the Site for inclusion on the National Priorities List (NPL). The Site was proposed for NPL inclusion on September 14, 2012. The Site is located on the south side of Route 322 (2160 Route 322 East; Block 6, Lot 5) in a mixed industrial, residential and rural area of Woolwich Township, New Jersey. It is a 70.26-acre parcel currently occupied by Liberty Kenworth, a medium and heavy duty truck sales and service center. Current on-site operations are limited to the northeastern portion of the Site, which is developed with an approximately 20,000-square foot, 14-bay service building and paved parking areas. A building of approximately 2,600 square feet housing a groundwater remediation system operated by NJDEP is located to the south of the service building. The remainder of the property is scrub brush and fields.

The Site is bordered by Route 322 to the north, undeveloped farmland to the east, Raccoon Creek and commercial property occupied by Interstate Aerial and Venezia Transportation to the south, and a portion of the Raccoon Creek Wildlife Management Area to the west. Grand Sprute Run runs northeast to southwest through the Wildlife Management Area adjacent to the west; this is a tributary to Raccoon Creek, which flows into the Delaware River approximately 5.5 miles

Name: Matlack Inc. Init: ss Date: 2/28/13 Filename: MATLACK INC RSE

Symbol	ERRD-RAB	ERRD-RAB	ERRD-RAB						
Surname	GREGOR Meg	WILSON JH	ROTOLA						
Date	02/28/2013	4/9/13	4/12/13						